

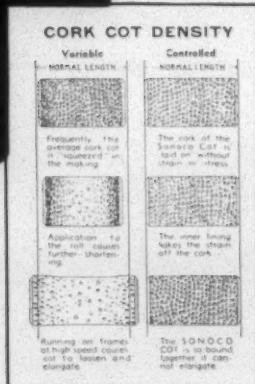
TEXTILE BULLETIN

Vol. 66

JULY 1, 1944

No. 9

*This
CORK COT
is different
from all
others*



The Sonoco *Re-inforced* Cork Cot eliminates this problem



The SONOCO Cot is made by applying a layer of ground cork to a seamless fabric tubing, and it is this tubing that takes up all strain on the cork in applying, and while running. Thus the cork retains its original, natural, uniform density throughout its drafting life.

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"That Big Black Belt with the Caterpillar Grip"

We have been telling you about NUFORM CHECK STRAPS, BALANCED PICKERS, MATCHED and STRETCHED LOOM STRAPS, etc. but now, we want to remind you that **SLIP-NOT Belts** are also outstanding performers!

SLIP-NOT (*the belt with the caterpillar grip*) is the original belt of this type. There have been imitations but there is no substitute for a genuine **SLIP-NOT LEATHER BELT** for SPINNING, WEAVING or CARDING.

♦ ♦ ♦

Call on
OUR NEAREST REPRESENTATIVE!

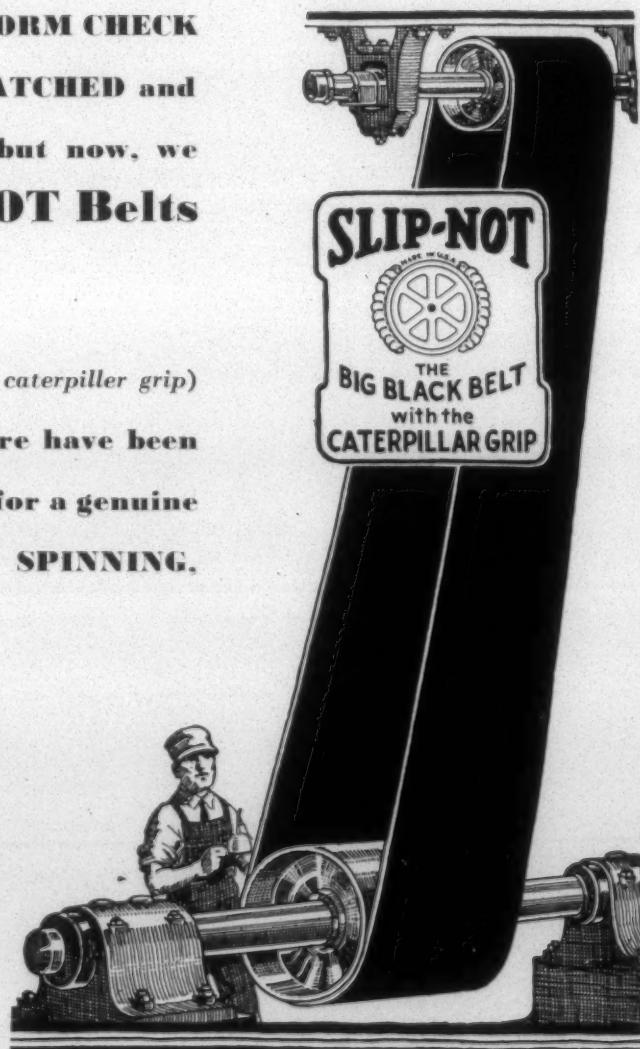
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SLIP-NOT BELTING CORPORATION
KINGSPORT, TENNESSEE

Published Semi-Monthly by Clark Publishing Company, 218 W. Morehead St., Charlotte, N. C. Subscription \$1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.

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OTHER MILLS ENDORSE

RCK

A SMOOTH, GLOSSY,
BLACK, RUST-RESISTING
FINISH FOR FLYERS

WAVERLY MILLS, INCORPORATED
COTTON YARNS

LAURINBURG, N. C.

June 2, 1944

Ideal Machine Co.
Bessemer City, N. C.

Attention: Mr. A. W. Kincaid, Mgr.

Gentlemen:

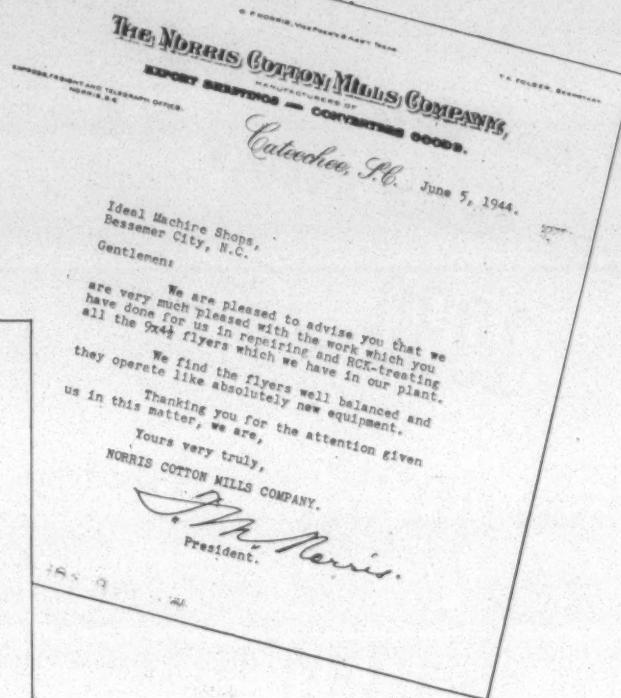
As you know we have 2280 spindles in our Waverly Plant and 1716 spindles in our Prince Plant, with flyers all treated with your RCK finish. We are pleased to report that we find the smooth glossy finish to be a great help in keeping down the collection of fly, but the greatest advantage we find is in their rust resistance.

Very truly yours,

WAVERLY MILLS, INCORPORATED

Walter Whalley
Walter Whalley
Superintendent

WW/gb



In the above letters these two mills commend their RCK-treated flyers for (1) being well-balanced, (2) running like new flyers, (3) shedding lint more easily, and (4) having rust-resisting qualities.

Other mills from Texas to New England praise our flyer work in these four respects and in many more. We shall be glad to furnish you a list of scores of these mills so that you can write them direct.



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BESSEMER CITY, NORTH CAROLINA

20th YEAR OF CONTINUOUS SERVICE TO THE TEXTILE MILLS

**From Cost-minded Mills
THE SAME STORY YEAR AFTER YEAR!**

1930

"...the cards will run almost indefinitely without stripping...we expect to send you an additional order."*

1936

"...we feel you are conservative in your claims."*

1940

"...we are very well pleased with the performance of this equipment...we have found definite savings as well as more uniform work."*

1943

"...they have paid for themselves many times over...we could not get along without them."*

* Names on request.

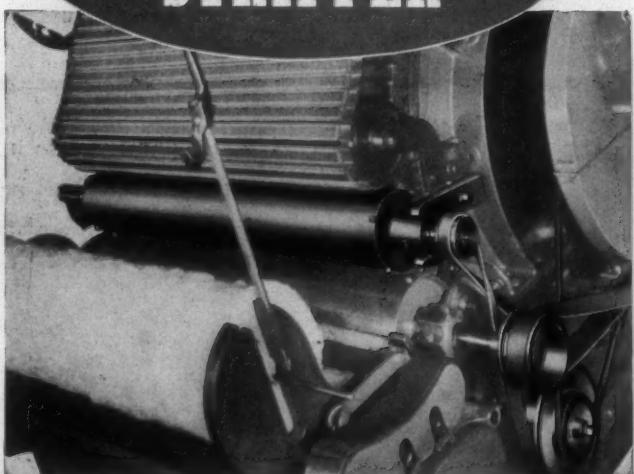
The satisfaction expressed in these statements from mill superintendents is proof of the efficiency and proven performance of the Saco-Lowell Continuous Card Stripper. Its many practical and important advantages may be summarized as follows:

1. Saving of Cotton
2. Increased Production
3. Improvement in Quality of Yarn
4. Cleaner Card Room
5. Saving in Labor Cost
6. Reduction in Power Consumption

The Saco-Lowell Continuous Card Stripper is easily and quickly installed on all Saco-Lowell Cards...and in many cases on those of other manufacturers.

Write for bulletin giving complete details.

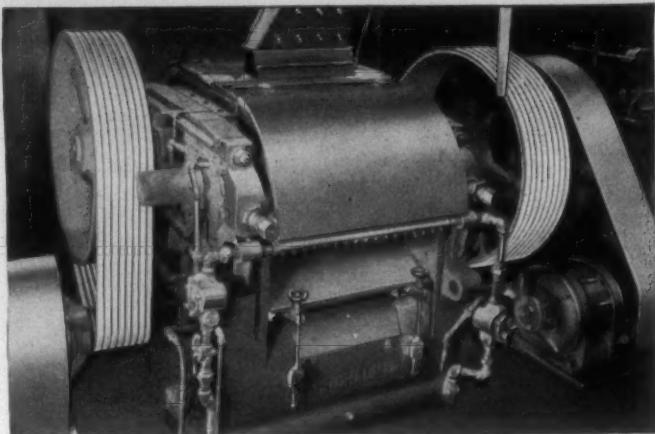
**Saco-Lowell
CONTINUOUS CARD
STRIPPER**



SACO-LOWELL SHOPS

60 Batterymarch Street, Boston, Massachusetts

• Charlotte Greenville Atlanta



*
One TYPICAL EXAMPLE

On these flaking rolls where gas flames create considerable heat, Gates V-belts of special synthetic rubber are used because of their proved ability to withstand bad heat and oil conditions. By actual records, on hundreds of installations where oil or heat conditions are severe, Gates special synthetic V-Belts are wearing 2 times to 3 times as long as any natural rubber belts ever used.

*Through More Than 6 YEARS
in Hundreds of Plants **

GATES *Synthetic Rubber* V-Belts

-Have Been OUTWEARING Any NATURAL Rubber Belts Ever Used!

Now that all industry depends on belts made of synthetic rubber, it is well worth-while to know that Gates Synthetic Rubber V-Belts have been in nation-wide use for more than 6 years—and through all that time they have been giving service actually *superior* to belts of natural rubber!

*There are, of course, many kinds of synthetic rubber. Gates uses each kind where it best meets some particular service need.

For example:—one special synthetic rubber which Gates uses extensively in making V-Belts has the ability to withstand oil and heat much better than natural rubber can. Where oil and heat conditions are especially severe, Gates special

synthetic V-Belts are giving 3 times to 4 times the service life of any natural rubber V-Belts ever used.

This is the record not of a few belts over a limited period but of thousands upon thousands of Gates synthetic rubber V-Belts installed in hundreds of plants and factories during the past 6 years.

Gates long headstart in fabricating V-Belts of synthetic rubber is of greater importance to you now than ever before because *all* the V-Belts furnished industrial plants today are of synthetic rubber.

You will gain a distinct advantage in V-Belt service by simply picking up your telephone directory and calling the Gates Field Engineer. He will bring right into your plant the full benefits of Gates knowledge and experience without the slightest obligation.

447

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BEACH-HEADS ON TOMORROW ARE BEING WON TODAY

Beyond the farthest horizons, American fighting men are landing on strange shores that they would never have seen, except for the sudden urgency of global war. And to help them hold these beach-heads in the face of the enemy, their equipment includes many incredible things equally undreamed-of, up to a short time ago . . . weapons, systems and devices which must seem like supernatural powers to Japs and Huns.

In the development of some of the most important of this equipment, Crompton & Knowles engineers have worked in "combat teams" with Army and Navy engineers. Little of this work has had any direct relationship to loom design, construction, or operation . . . much of it would never have come into our own theatre of operations except for war emergency. But in this experience is much of

value to textile mills, once it has been translated into practical features of loom design . . . or better means of testing parts and materials . . . or of "seeing" phases of high-speed loom-performance that could not be seen clearly before. So it is that future advances have already been won in the field of weaving efficiency.

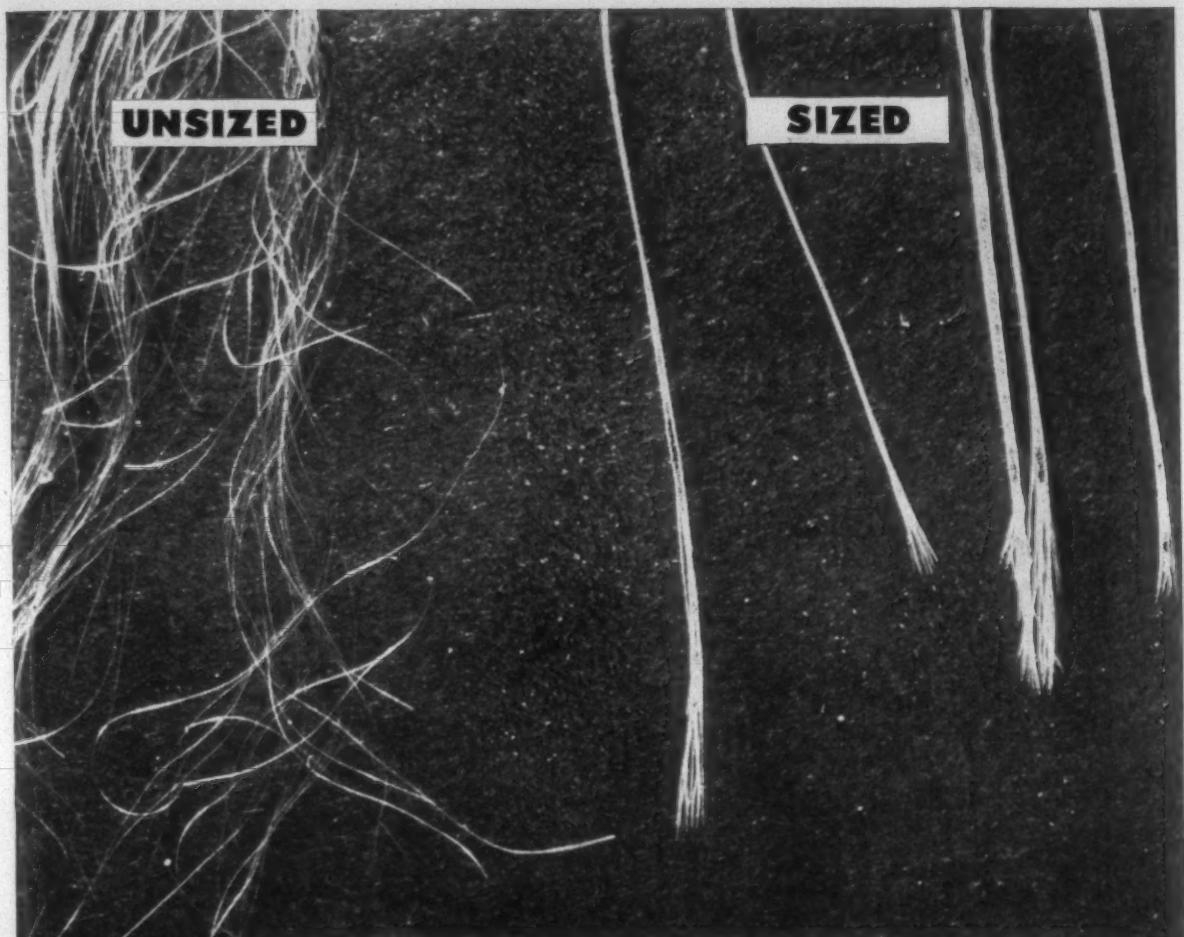
But this is not to say that all these new improvements will be ready at once, as soon as the war ends. Some will be, others will not. For not until the war does end, will there be time to study fully the possibilities and bridge the gap between today's war weapons and their uses in tomorrow's looms. Yet even so, progress will have been sped years ahead of normal peacetime progress . . . thanks to the many beach-heads on tomorrow which are being won now, while the war is being won.

Crompton & Knowles Loom Works

WORCESTER 1, MASSACHUSETTS, U. S. A.



*between Today's War Weapons . . .
and their New Uses in Tomorrow's Looms*



...a good "break" for rayon

And we mean it two ways—a good break because continuous filament warps break clean under test after being sized with Houghto-Size—also a good "break" for the rayon mill because this superior size compound has what it takes to give you high quality, full-speed production.

HOUGHTO-SIZE provides better handle in the finished goods . . . it's highly concentrated, hence economical . . . it assures good weaving . . . is easily boiled out. To arrange for complete test, ask the Houghton Man, or write direct to E. F. HOUGHTON & Co., Philadelphia or Charlotte.

HOUGHTO-SIZE for rayon

HOUGHTON TEXTILE AIDS

include:

COTTON WARP SIZES
RAYON OILS
SOFTENERS
WORSTED SIZES
WETTING AGENTS
DETERGENTS
LUBRICANTS

Let **LANITOL**

Reg. U.S. Pat. Off.



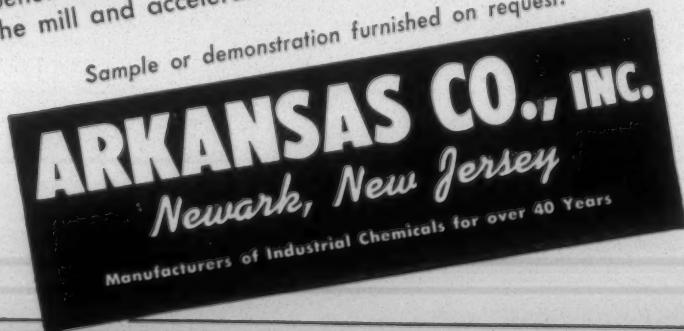
**SUPERIOR
SYNTHETIC
DETERGENT**

Do it

A highly efficient product for use in scouring and boiling off all textile fibres. Active in hard or soft water it may be used alone in the bath or in conjunction with soaps or alkalies with amazing results.

- Let LANITOL increase the detergent action of your soap and achieve cleaner stock, yarn or cloth through its rapid and complete rinsing properties.
- Let LANITOL improve the boiling off, processing and dyeing of rayon hose in one or two bath methods. A better finish and uniform shade is easily accomplished.
- Let LANITOL prove its value for washing off worsted tops and yarn to remove all oil and grease.
- Let LANITOL demonstrate its ability to thoroughly scour rayon and woolen cloth and effectively remove all residual soap, dirt, etc. in the rinse, leaving the cloth with a pleasing hand and free from objectionable odors.
- Let LANITOL raise the efficiency of your fulling operation—a small addition to the soap liquor increases its penetration and activity when applied to the cloth in the mill and accelerates the fulling action.

Sample or demonstration furnished on request.



STATE'S RIGHTS—A PRINCIPLE IMPORTANT TO THE NATION'S WELFARE



By OLIN D. JOHNSTON
Governor of South Carolina

THE rights of free men must be preserved, no matter what the cost may be. The principle of state's rights is as old as the nation itself. Men have died and bled on the battlefield to preserve this principle, which is as ancient as the republic.

While our men are today dying upon the battle-fields for freedom, we here at home must not surrender the principles for which our forefathers shed their blood upon the nation's battlefields. We people here at home have been fighting the battle on the home front. We have surrendered many of our liberties because of the expediency of war, but we must begin now to make preparations, as soon as the war is over, to repeal any of these rules and regulations which might impede the long, time-honored principle of state's rights.

The sovereign states have great opportunities in the post-war period for industrial and social progress, but progress can be achieved only through the old-fashioned American way of life where competition has full sway, where men work and fight to achieve a purpose. Society cannot be regulated nor can the human life be planned in every detail from the cradle to the grave. There are certain risks that go along with living. These risks make life interesting. It is the unknown which makes us attempt to discover what lies ahead. The pioneering of our forefathers encourages us to pioneer ourselves.

There are many fields of activity which have never been explored to their fullest extent. We shall march

ahead tomorrow in the fields of science, medicine, education and industry, and we can accomplish much, if we redeem and preserve the principles of individual liberty and of state's rights.

For the past 50 years much has been written about state's rights; many demagogues have spoken in favor of state's rights, but little has been done to perpetuate the principle of the sovereignty of the state. If we are to carry forward the idea of state's rights, we must begin with local self-government. There is a tendency to centralize authority in Washington and the American people must awaken to the responsibilities that go along with citizenship.

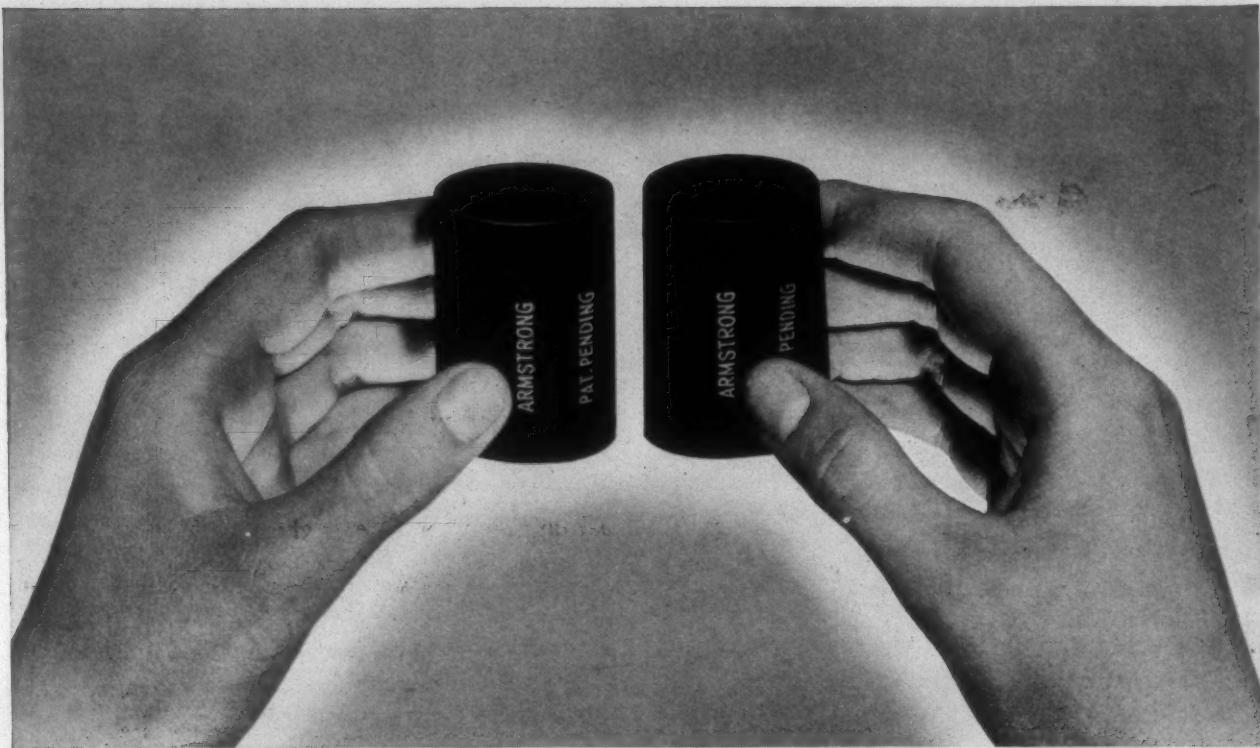
Every man and every woman must be vitally interested in who shall be elected their representatives, from the game warden in the local community to the president of the United States.

I have gone so far as to advocate placing educational authority wholly within the jurisdiction of the local school districts. We cannot perpetuate state's rights, if the American public becomes wholly indifferent as to who will lead them in their communities and cities.

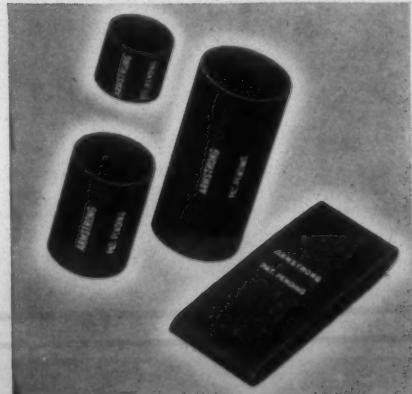
State's rights either wins or loses at the ballot box. Therefore, it behooves every American citizen to speak out at all times for clean and just local government and decry any trend that might lead to a dictatorship or centralization of authority in our nation.

UNIFORM!

... IN COMPOSITION
... IN SERVICE LIFE
... IN DIMENSIONS



YOU can count on all Armstrong's Accotex Long Draft Aprons to give consistently good service for the same length of time. Barring unusual mill accidents, they do away with frequent time-outs to replace worn or torn aprons. The tough synthetic rubber composition of Accotex Aprons is uniform from apron to apron and homogeneous throughout each. Dimensions of every size are accurate.



Besides being uniform, Accotex Aprons offer these advantages . . .

NO STRETCHING: Accotex Aprons have a sturdy interliner which eliminates loss of efficiency due to stretching during operation.

LONG LIFE: Accotex Aprons in continual service for more than two years show little sign of wear!

CLEAN-RUNNING WORK: Accotex Aprons do not crack or scuff. Thus they assure cleaner-running work and less waste.

REDUCED LAPPING: Accotex Aprons are not affected by changes in either temperature or humidity. They per-

form with a minimum of lapping.

GOOD FRICTION: The efficient "grip" of Accotex Aprons keeps slippage at a minimum.

NO SEAMS: The seamless construction can't break open and shorten service life.

These advantages explain why Accotex Aprons can help you spin better yarn and stay at peak production. Get samples and prices from your Armstrong representative. Or write Armstrong Cork Company, Textile Products Section, 8207 Arch Street, Lancaster, Penna.



**ARMSTRONG'S
ACCOTEX APRONS**
CORK COTS • ACCOTEX COTS



TEXTILE BULLETIN



Vol. 66

July 1, 1944

No. 9

TEXTILE SCHOOLS and TEXTILE RESEARCH

By MALCOLM E. CAMPBELL

MUCH is being said, and a great deal more is being written these days, about the need for research in the textile industry. Call it propaganda if you like—no doubt the primary purpose of much of it is to convince the uninformed or ultra-conservative heads of some industrial firms that they can ill afford to refrain any longer from spending a dollar or so for research. The discussion that is to follow was not designed to convince anybody of anything—it is merely an attempt to illuminate a certain aspect of the subject that might reasonably be expected to be of interest to the membership of a textile organization.

What I should like to discuss with you is the place of the textile school in the new and expanded program of research in the textile industry that is certain to be thrown into high gear as soon as the war is over. More specifically, I want to describe the position, as we know see it, of the textile school at North Carolina State College in the scheme of things in research.

At the present time and in the past, the problem of obtaining personnel with adequate qualifications for textile research has been the most serious one in any program. With few exceptions the laboratories themselves have had to be the training schools for research workers. Young men and women well-grounded in chemistry, physics or textile manufacturing must now spend long, unproductive periods in the work before they can become valuable assets to a research unit. I do not mean to say that this practical experience can be substantially replaced by any training that is now or will be available in the colleges and universities for many years to come. But with a teaching staff possessing not only an appreciation of research but also a background of experience in it, a textile school should be able to impart some invaluable training to the student who plans to take up research as his life's work.

Each textile school differs from the others in its objec-

tives and its make-up as regards teaching staff and equipment. Upon those factors will depend the success with which these institutions can turn out students who are fitted to become productive in textile research after a minimum of experience following graduation.

I have referred to the possibilities of training young men and women as professional research workers. No doubt only a small proportion of students studying textiles will possess the qualifications or even the desire to get into this field. It is difficult to imagine a person in any branch of the industry, however, to whom even a speaking acquaintance with textile research will not prove to be a valuable asset. The fruits of research will be a useless product indeed unless the men in production have an appreciation of its value, and an intense desire to apply it and profit thereby in their own organizations. Therefore, to the greatest possible extent, a school should endeavor to acquaint all of its students with the possibilities and limitations of the tools of textile research; with the most modern methods of analyzing and interpreting the results of research; and lastly, with the identity, scope and objectives of the different organizations conducting textile research.

Most of you know, I think, of the splendid assistance the textile school at State College is receiving from the North Carolina Textile Foundation, enabling us to appoint men of unusual experience to our staff. I should like to mention also the fine co-operation we have received from state officials. Fortunately for us, we have found these men not only appreciative of the benefits of research, but actually insistent that each unit develop an active research program. At the same time, they are aware that for the proper conduct of research, expensive and up-to-date equipment is needed, and so we have received every encouragement to add to our laboratory facilities.

With our modern equipment and a staff of excellent

For one mere word, "research" has had a good deal of use in recent months; much has been said and printed about this subject in the textile trade. To bring its readers up to date in regard to research several pertinent articles are presented on this and following pages of this issue. The article by Dean Campbell, head of the textile school at North Carolina State College, is abstracted from his address before the meeting June 17 at Winston-Salem, N. C., of the Piedmont section of the American Association of Textile Chemists and Colorists. The short article on the following page is authored by one of the South's young but very capable plant executives who prefers to remain anonymous. Charles B. Ordway, who is well-known in dyeing and finishing circles, brings up a subject which should interest all divisions of the industry.

caliber, we therefore feel certain that the textile school at State College is in an excellent position to give sound training in textile research methods to its students. For those interested in pursuing graduate studies in research, special curricula will be developed to meet individual requirements, and the school stands ready to step up the tempo of its research training in this regard as the demands for it increase.

What has just been said with regard to the textile school at State College is also true in greater or less degree with other textile schools in the country. The direction and pitch of their research training will depend upon the objectives of each institution, upon the quality of its teaching staff, and upon its facilities. As the demands for trained graduates in the field increase, and this is sure to occur, the schools will of necessity readjust their sights to this important requirement.

So much for the training of students in research in the textile schools. And now the question: should textile schools attempt seriously to carry on research programs themselves, and if so, of what general types? Again the answer will depend upon the peculiar set of circumstances existing in the individual institution, and in this connection, I shall confine my remarks to the textile school at State College. Here, the answer is definitely yes. I say this in spite of the feeling that exists in some quarters that too many organizations already occupy the field, and that as a result, overlapping and duplication of effort are tending to stifle the possibilities that anything of real worth can result from additional effort. To anyone who has made a serious study of the question, it is obvious that there is no such thing as too much research, provided, of course, that those responsible for the various programs have the proper perspective and guard against a general muddle of the kind mentioned. Fortunately, such a possibility has already been

effectively precluded by the organization of the Inter-Society Council for Textile Research. If the members of this council each keep one foot on the ground, there need be no confusion; in fact, the various research organizations can and, I believe, will co-operate and prove mutually helpful to one another.

We shall conduct research primarily because we feel that we are equipped, mentally and physically, to contribute something useful to the industry through it, and I do not think this motive needs further expansion. A secondary motive, but one of importance to us, is that research keeps a teaching staff on its toes—protects them from the inevitable rut into which so many good teachers fall if they do not have something new to help maintain a proper balance.

Just what constitutes research and what does not is always a good subject for argument. Permitting a sufficiently broad interpretation of the term, all research may be placed in one of two categories, fundamental or applied. Giles E. Hopkins, director of applied research for the Textile Research Institute, recently stated that "the concept of fundamental research . . . in general places the emphasis on the desire to determine basic principles which control the behavior of materials or energy in their various forms. . . . Applied research has the same relationship to fundamental research as engineering has to pure science. Essentially it is the step between the revelation of the principle as turned up by fundamental research and the application of this principle to answer known demands."

In many cases a good piece of applied research may be accomplished without a very complete knowledge of the fundamental principle involved. If we had had to wait, for example, until we knew all about the phenomena that would take place within a carding machine before we could apply the principles to cotton, the human race would still be tapping its collective foot, waiting for the card to be

Some Food for Thought Concerning Research

THE day of highly scientific textile manufacturing is dawning, and those who are unwilling to accept this fact are definitely on the way out, whether they be mills or their superintendents and overseers.

There are many mill men today who are of the old school, and who have foresight enough to see the value of research and technical engineering. These men are, beyond all doubt, the most valuable in the mill business today, because they show brains in recognizing the fact that textile plants have, for generations, been operated in a slip-shod, very unscientific manner.

Now the time has come when he who produces a little higher-quality product for a few cents less is going to sell his product, while the other fellow will be headed toward liquidation. The man who weathers the storm will be the one who is not only willing, but is anxious to try to find exactly what his best twist multiple is, exactly what is the proper per cent relative humidity for his particular stock and product (how many can define per cent relative humidity?), exactly what roll settings will give him the

best results, and hundreds of other hitherto carelessly handled items of importance.

Too many of these items, as used in the mill today, are purely untested notions of superintendents or overseers, although they have been handed down as facts. For an example, let us take the item of humidification; not long ago, the writer happened to be in a rather prominent Southern spinning room—everything was clean, in good condition, and seemed to be running well, but trouble was prevalent in holding counts and break close to standard. It was soon learned that the overseer was trying to control the humidity in the department by operating the water line by hand! When asked why this was done, his answer was that the automatic controls were no good, and that the spinning just wouldn't run when the humidity was regulated by the elaborate automatic control system. Of course it would not; if the overseer did not want it to work, it would never be made to work for the hands.

One of the best spinners that I've ever seen lost his job because he refused to ac-

cept long draft. His old job is being run smoothly now by one of his former second hands.

There is also men who are against technical progress within textile plants. These are the superintendents and overseers who have become lazy through the years and have no desire for change, because it will mean that there would have to be a readjustment on their part. All of us have seen the man who sullenly resents any suggested changes in his department or his mill. This man can be dangerous, because he will do little sneaking, underhanded things which are intended to reflect on the one who is trying to help him.

The handwriting is clearly on the wall—all textile executives would be very smart to sit down and mentally analyze each key man, because the sooner they redeem their curables, and get rid of their incurables, the better will be their chances of survival. And while they are examining us, we had better analyze ourselves. It might surprise us to see what the handwriting on the wall says!

TELESCOPING TIME



War has hastened the development of new methods of coloring certain fabrics. For example, the newly developed methods of dyeing wool with Indigo will no doubt greatly extend the use of vat colors on this fiber. Military demands have also resulted in greatly increased production of Ponsol* dyes.

During this period, it should be mutually helpful for us to work together. Our laboratories can help you solve your wartime technical problems. We may, in addition, telescope time by accumulating vital experience and knowledge that will bring profitable solutions to post-war problems. E. I. du Pont de Nemours & Co. (Inc.), Organic Chemicals Department, Dyestuffs Division, Wilmington, Delaware.

*Reg. U. S. Pat. Off.

DuPont Dyestuffs

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

REG. U. S. PAT. OFF.

invented. The fact is, we do not know yet exactly how the fibers behave in a card, but some 80,000 of the machines are in operation in this country every day! In other words, there is still a place for the empirical, or "trial-and-error" approach to research, although the efficiency of this method may well be questioned in many cases.

Because of the experience and mental make-up of our staff, and in view of the facilities available at the State College textile school, we can expect to contribute more by confining our activities primarily to the field of applied research. There may be cases in which some work of a fundamental nature may be conducted, as for example the measurements of the physical characteristics of fibers under different degrees of relative humidity and temperature. But in general the greatest returns from research can be expected in a textile school if the program centers around the application of principles to commercial production, whether it be in bleaching, dyeing and finishing, or in the spinning and weaving or knitting of various materials.

There is one point that I should like to emphasize with respect to research of all kinds, and that is the time element involved. There are those in positions of authority in the textile industry who firmly believe that a month is ample to set up any research project and put it into action, and that, say, on every second Monday the project should produce a new, revolutionary and money-saving finding or it isn't worth the money spent on it. To those men I would call attention to a statement, appearing in *Textile Research* for December, 1942, that "It will take a new laboratory five years to find its feet. . . And it will require at least ten years before the research laboratory pays profits." The actual time required for either, of course, will be determined by many factors, but the point is that successful research cannot be conducted with one eye on the clock and the other on the calendar. The supporters of research must have faith in the staff and its objectives, and they must expect that many blind alleys will be traversed before

anything of really outstanding value can be accomplished.

It is an elementary but frequently-overlooked fact that before embarking upon a research project it is well to spend a sufficient amount of time to survey the field and determine what has been done previously on the subject. To do this quickly and thoroughly requires adequate library facilities. At State College we expect very shortly to have an excellent textile library in our school under the supervision of a trained librarian, and of course we shall make full use of the library in our research. We enjoy another advantage at State College which already has proven very valuable to the research we are doing. There are outstanding chemists, physicists, engineers, agricultural scientists, mathematicians and statisticians on the college faculty who are available at all times for consultation and co-operation, and assistance is being given to us by these specialists whenever the need arises. In fact, the school administration is fostering the fullest co-operation among the different units particularly with reference to research, and the value of such co-operation cannot be assigned too high a value.

In planning our research program we have high hopes of establishing a department of textile research, with a staff of trained people working under the direction of an outstanding scientist. When this is done you may rest assured that no aspect of textile research will be overlooked and that equal emphasis will be given to the chemical, physical and mechanical problems of the industry.

Many relatively small research projects can be managed at a textile school without the need for any additional funds whatever. It is our policy to carry out investigations of a limited scope for the mills of the state upon request and without charge. If the project requires considerable time and some new equipment and materials, it frequently is possible to undertake such an investigation for a reasonable fee, which merely covers the additional expenses. In some cases a research organization may sponsor a project at a school, with funds obtained—(Continued on Page 39)

Organization of Industry-Wide Research Council Completed

A RECENT step toward the co-ordination of textile research activities, and the avoidance of unnecessary duplication, has been taken through the completion of the organization of the Inter-Society Council for Textile Research. It has been announced that the voting representatives of the members of that council have elected Giles E. Hopkins, director of applied research of the Textile Research Institute, Inc., chairman, with the following appointed members of the executive committee: John T. Wigington, director of the division of technical service of the Cotton-Textile Institute, Simon Williams, director of research for the National Cotton Council of America, William D. Appel, chief of the textile section of the National Bureau of Standards, and R. W. Vose, secretary of the Industrial Fiber Society.

Recognition of the need for just such an organization led to a meeting of representatives of the major textile research groups last fall, at which plans for the formation of the council were laid. A steering committee was ap-

pointed and has now completed the organization's details.

It is planned that the council will provide facilities for the maintenance of a continuous inventory of active research work sponsored by textile groups working in the interests of the industry. Through the use of this inventory, the individual organizations will be in a position to avoid unintentional duplication of studies already in progress. It is felt that this service should go a long way toward increasing the effectiveness of research for the textile industry.

The organizations now co-operating in the council are: American Association of Textile Chemists and Colorists, American Association of Textile Technologists, American Society for Testing Materials, Cotton-Textile Institute, Inc., Industrial Fiber Society, Institute of Textile Technologists, National Bureau of Standards, National Cotton Council of America, Southern Regional Research Laboratory (Department of Agriculture), Textile Foundation, Textile Research Institute, Inc., and War Food Administration (Department of Agriculture).

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**From the Tree
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every step controlled
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own management.

That is but ONE reason why

**SOUTHERN
Tempered DOGWOOD
SHUTTLES**

give such remarkable service. A complete line of both Dogwood and Persimmon Wood Shuttles for every type of fibre to be woven. Equipped with our own patented proven creations in the form of eyes, grip assemblies and other hardware items.

If you have never tried a
SOUTHERN TEMPERED SHUTTLE
then you have not enjoyed the ultimate of economy and
productiveness in weaving.



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**SOUTHERN SHUTTLES DIVISION
STEEL HEDDLE MFG. CO.**

GREENVILLE, S. C.

Manufacturers
of Superior
FLAT STEEL HEDDLES—
HARNESS FRAMES—
ALL TYPES OF
LOOM REEDS—
TEMPERED
DOGWOOD
SHUTTLES—
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ECUADOR, S. A.: Gonzalo Perez B., Quito.
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Why No Textile Chemistry Research Program?

By C. B. ORDWAY

IN Southern states textile foundations have been organized to assist the textile schools in their research and development programs which are now under discussion. From talks given by Dean Malcolm Campbell of the North Carolina State College textile school and reports from other Southern textile research foundations, the trend of proposed research work is to be based very largely on improving manufacturing methods (cotton manufacture and knitting). There is only passing mention made of textile chemistry, dyeing and finishing. This is surprising in the light of the fact that several of the leaders in organizing these foundations have large interests devoted to this increasingly important branch of the Southern textile industry.

The Southern textile schools have had the great advantage of being parts of well-rounded state engineering colleges, while the Northern textile institutions are largely of the vocational or industrial institute type, highly specialized in textile instruction only. In the past, the Southern textile schools have shown good work on textile manufacturing subjects but practically all schools have been woefully weak on textile chemistry, dyeing and finishing due largely to poor financial support of these departments in regard to equipment and sufficient properly trained personnel. The Northern institutions, due to better organized and more liberally supported textile chemistry and finishing departments, have dominated this branch of the industry. From all reports, they intend to retain this dominating position through funds of their own or having some of the various national textile associations allocate all their research funds for use on specific research studies under direction of these institutions.

The Importance of Finishing

The directing officials of the Southern textile schools and research foundations must consider the fact that well-manufactured textile goods are essential but carry only a small margin of profit as compared to well and modernly finished goods; so why plan to build a fine streamlined train and leave the engine out of it? *Smartly finished fabrics make a mill go.* Plainly stated, the Southern textile schools must give more than passing mention to textile chemistry, dyeing and finishing research, or otherwise they will continue to be chiefly bureaus to broadcast interesting facts from trade bulletins of our leading dyestuff, chemical and rayon makers. The lack of a full program for textile chemical and finishing research will make for an unbalanced program; the textile industry of the South will have well-trained men for textile manufacturing but will not have chemical students with the training that this branch of the industry merits. Those textile schools that are wide awake enough to provide the same proportion of funds for textile chemistry and finishing research will receive the

acclaim of the industry in the future, for they will help remove forever that "bogey" remark made by so many Northern textile buyers that poorly finished textile goods are just another Southern finishing plant's job.

The type of men needed for such a job must follow in the same classification as some of the excellent selections already made by Dean Campbell for the manufacturing branches, plus several other personal attributes. Such a party must possess well-rounded technical training plus practical knowledge of finishing plant operations, and under no circumstances be a typical "Ph.D." type who is so brimming over with pure research and theory that he does not possess the personal faculties of mixing enough practical knowledge with pure science to train men for textile research studies and development. This is a funny and exacting definition, but men of this type are available who do wonderful jobs of practical research in the textile chemical and finishing branch of the industry now, and could do just as fine a job training leaders for the future if Southern textile schools would look for them and support them on the same basis as the manufacturing branches.

Planning the Program

In discussing these ideas with a textile friend, the writer was asked the pertinent question, "Now, just how would you plan a textile chemistry and finishing research program for a Southern textile school so as to fit in with Southern economic and industrial conditions?" Briefly, this was the writer's reply: Taking into consideration that the textile schools were furnishing a modernly equipped laboratory with miniature wet processing equipment, with a pilot finishing plant available either at the school or some co-operating finishing plant to carry through small full size tests when development work had been carried up to that stage, then classify development program under several headings as follows—

(1) Yarns—cotton; and synthetics (cellulosic rayons and proteins). This includes a study of cotton yarn as to giving it improved appearance, durability, weaving and knitting properties by utilizing ideas obtained from a study of the manufacture of synthetic yarns as well as of the finished product; testing out these ideas experimentally and from these tests properly observed research work of practical value could be started on cotton yarns; taking into consideration that all processing must be as simple and foolproof as possible for a chemical processing job that may sometime in the future be applicable in small as well as large textile plants. Results of this study could be carried further than just for improved weaving and knitting yarns by utilizing these same principles to help cotton tire cord regain its slightly battered prestige.

(2) Cottons as self-fabrics;—(Continued on Page 36)

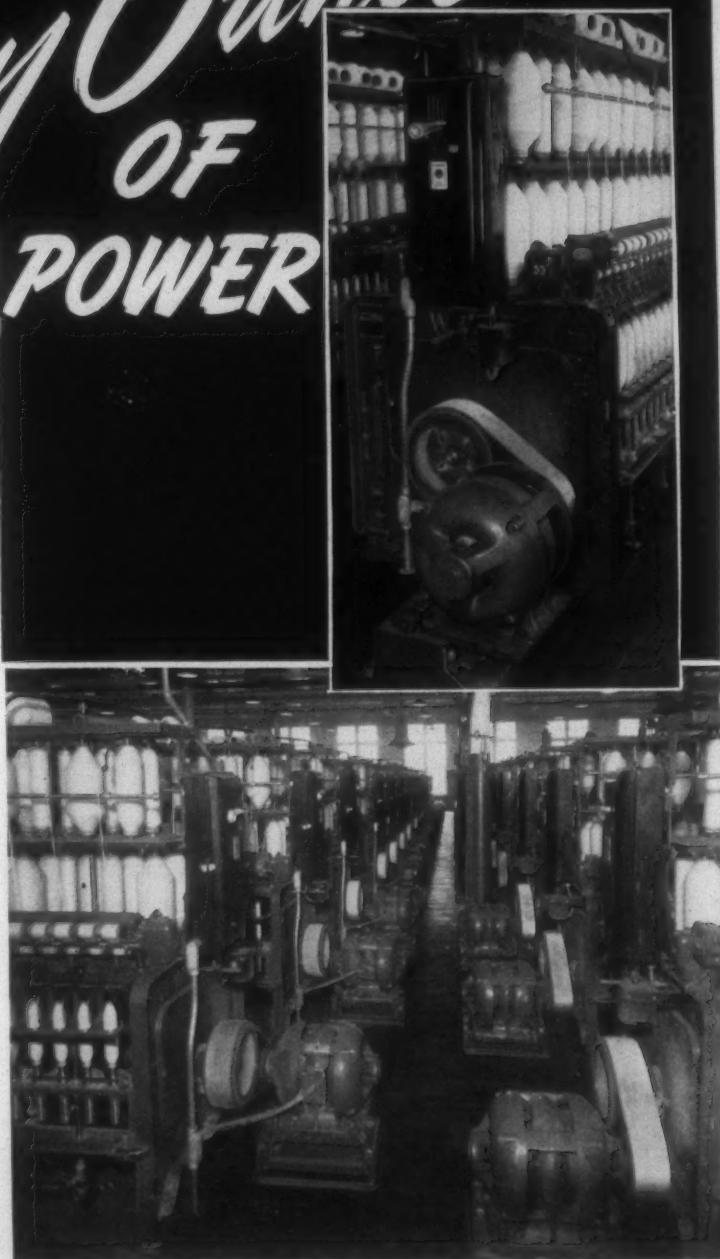
DELIVERING Every Ounce OF POWER

Rockwood Southern
Short Center Drives
with
PIVOTAN Leather
Belting

This war has taught the effectiveness of "combined operations"—the greater striking power of the infantry, mechanized forces, the air-force or navy, when each is aided by the others.

The combination of Rockwood-Southern Short Center Drives with PIVOTAN Leather Belting is an example of the application of "combined-operations" in industry that is preventing power loss, and increasing production in scores of southern mills.

Rockwood-Southern pivoted motorbases insure the proper belt tension at all times. PIVOTAN Leather Belts (made from leather especially tanned by us for superior gripping and flexing qualities), deliver power from motor to machine with maximum efficiency.



Above—partial view on an installation of 150 Rockwood-Southern Short-Center Drives (Westinghouse Motors and Controls, Rockwood Pulleys and Pivoted Motor Bases, and Pivotan Leather Belts), in the spinning room of a large Southern Mill.

SOUTHERN BELTING Co.

Manufacturers and Warehouse Distributors
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Leather
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Race-Plate Covering on Quality Weaves

By H. E. WENRICH — PART TWO

THREE is considerable controversy among fixers in regard to race-plate and box alignment with shuttle movement. Some fixers contend that the race-plate must be planed off to offset the increase in pile height when placing felt or other covering on the race plate. Other fixers regard alignment as immaterial.

Pointing out differences on this subject, worn covering ends fronting the shuttle box are often offered as a conclusive illustration. However, it is not advisable to remove the race-plate and plane it down. This procedure may seem logical at first glance, but reasoning will show the fallacy of the idea.

Removing a desired thickness by cutting off a thin layer of wood from the race-plate or lay may give a perfect horizontal alignment from box end to box end when new race-plate covering is glued on, but when the covering wears down, such as pile in pile fabrics or nap on corduroy or felt, the race alignment is lowered below the shuttle boxes. Thus when the shuttle drives across the lay and enters the box it strikes on the bottom box-plate edge and flies upward. This results in splintered shuttle bottoms and top box guides as well as often being the direct cause of a damaged transfer.

Most serious of all, however, is that in taking up the race-plate, glue and brads are disturbed, transmitting a botched-up job to the race and lay. This practice gives too much trouble and is not the logical fix. If a race-plate must come up, experienced maintenance men familiar with woodwork should do the job. Fixers, regardless of how good they are, should never tackle race-plate jobs unless one must come off due to splintered sections or is broken and in need of replacement.

A better method is to take up the shuttle box-plate—wood or metal—and pad it to the desired height, using thin sheets of stiff paper for padding. This method offers a better measure of success than disturbing the race-plate and one which a fixer is more familiar with. However, keep in mind the height of new covering compared to worn covering and pad the box-plate up just enough to come in alignment with the assumed level of a worn covering. Otherwise a high shuttle box-plate will give trouble.

Preventing Shuttle Bottom Damage

When padding up box bottoms, lay a straight edge on the box-plate and align it with the worn covering position on race-plate. The front edge of the box-plate may now show a trifle high over the wood race-plate. If so, bevel the front lip, sandpaper and shellac to remove rough spots. This prevents damaging shuttle bottoms when entering the box.

The writer has experienced rayon weaving on Draper as well as Crompton & Knowles looms, and in thought with

many fixers, believes that no damage is encountered when placing the thinner grade of race-plate covering on a lay if certain precautions are taken. There are three methods open for covering the race-plate "as is."

The first is to cut a slot into the race-plate near the box front approximately $\frac{1}{8}$ inch deep. Bevel the edge leading into the shuttle box. Now with a good wood rasp, cut the race-plate on a slope towards center for three inches. This slope offers a gradual fall three inches from the slot and up to the depth of $\frac{1}{8}$ inch. After rasping away the wood which is to be removed, sandpaper and shellac to a smooth finish. When race-plate covering is glued into place, each end is gradually sloped into the deviation and fitted flush with the box-plate lip thus made. This brings the covering on or slightly below box alignment, and when the shuttle passes through the shed, the top shed holds it in perfect flight as it skips over the spot where covering and box lip meets.

The second method is to cut ends diagonally so the long point is outside. As the shuttle comes out the box, it rides the long point first which pitches it toward the reed. If the angle is glued with point toward reed, the shuttle is pitched outward and strikes center feeler wires or offers a chance for flying out.

Some fixers run the covering ends into the shuttle-box approximately two inches. The idea of this third procedure is that when the shuttle is picked out it makes a rise onto the fabric and is then guided down onto a level flight when passing beneath the shuttle guide in front of the box.

Width of Covering

Race-plate width determines covering width. Some loom types having narrow race-plates take a narrow cloth. Many ready-cut felts and other covering fabrics come in two or three-inch widths to accommodate loom type. Some looms have a $2\frac{1}{2}$ -inch width race-plate. As the warp yarn does not come in contact with the bevelled section and the shuttle rides no part of it, it is therefore unnecessary to cover the one-half-inch portion, thus saving both time and material.

If mixed looms are in a fixer's section, he should be supplied with covering material for patch-up jobs of each width. These patch-up jobs are extremely rare between warps, but it is necessary to be prepared. If a patch-up job is required, the cloth covering is cut on an angle to match a similar cut on the covering that will be left on the race-plate. The old worn section is removed, and the patch applied to make a diagonal meeting with the remaining section (usually a patch job is better accomplished by lifting all warp yarn to topmost shedding position to allow sufficient working space on the race-plate). If short patches are applied with the covering—(Continued on Page 38)

YOUR PLANT QUOTA

100%

JULY 29th

95%

90%

85%

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Stay at Your Battle Stations!

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—the 5th War Loan Drive is still on.

July 29th is the last pay day in the Drive.

The U. S. Treasury has set the overall goal at \$16,000,000,000 —\$6,000,000,000 from individuals alone. This is the biggest sum ever asked of the American people—and it must be raised!

Keep fighting. The 5th War Loan is a crucial home front battle of tremendous importance to the total war effort.

Tighten up your 5th War Loan Drive organization. Step up your solicitation tempo. Drive! Drive!! Drive!!! Hit your Plant Quota's 100% mark with a bang that'll proclaim to all the world that the U. S. Home Front is solidly in back of the Fighting Front. Need help? Need ideas? Call on the Chairman of your War Finance Committee. He's standing by.

Here's the Quota Plan:

1. Plant quotas are to be established on the basis of an average \$100 cash (not maturity value) purchase per employee.
2. Regular Payroll Savings deductions made during the drive accounting period will be credited toward the plant quota.
3. Employees are expected to contribute toward raising the cash quota by buying extra 5th War Loan Bonds: 1—Outright by cash. 2—By extra installment deductions. 3—By extra installment deductions plus cash.

Example: JOHN DOE MFG. CO.—1,000 Employees
 1,000 Employees x \$100 . . . \$100,000 Cash Quota
 Regular payroll deductions during the eight weekly payroll accounting periods of June and July.
 30,000
 \$70,000 (to be raised by sales of extra Bonds).

BACK THE ATTACK—SELL MORE THAN BEFORE



The Treasury Department acknowledges with appreciation the publication of this message by

TEXTILE BULLETIN

* This is an official U. S. Treasury advertisement—prepared under the auspices of Treasury Department and War Advertising Council. *

Production Awards Highlight Industry's War Contributions

THE Stark Mills plant of United States Rubber Co., located at Hogansville, Ga., received the Army-Navy "E" June 20 from Col. Francis J. Heraty of Fort Benning, Ga., for its part in producing materials important to the war effort. In addition to producing tire cord, Stark Mills also manufactures Asbeston, and weaves yarns for bullet-sealing hose, hydraulic brake hose and fire hose as well as the Ustex yarn for parachute webbing. A total of 1,000 workers are employed in these operations.

The importance tire cord is playing in the war against the Axis powers was stressed in the addresses of the principal speakers. George M. Tisdale, vice-president of United States Rubber Co., congratulated the workers on their achievement in winning the "E" flag and told them that spinning and twist tire cord was just as important a job as that of any war production worker. In making the presentation, Colonel Heraty said: "Here you have taken cotton and processed it into tire cord, ultimately used in the making of all rubber tires without which our great mobile forces would be unable to move." A. C. Link, factory manager of Stark Mills, received the flag for the plant and praised the workers for their production.

Representing the Navy was Comdr. William Waldron White, commanding Atlanta Naval Air Base. The commander presented four token "E" pins to Sergeant Michael Riccio, wounded Army Air Force veteran from Lawson

General Hospital, Atlanta. The sergeant put the pins on Gay Swan, chairman of the employee council; Mrs. Jessie Wae Weaver; Joe Abbot, honorably discharged Seabee; and Joseph Truitt. Mr. Swan made the acceptance talk.

Employees of Springfield (Tenn.) Woolen Mills received this coveted production pennant June 27 from Col. Thomas W. Jones of the Philadelphia Quartermaster Depot, who made a point of translating accomplishments of the plant into figures which indicated the number of troops actually aided by its output of blankets and cloth for sleeping bags. Vernon Sharpe, Jr., vice-president of the company, was master of ceremonies, and the "E" flag was accepted by John S. Bransford, president. Lieut.-Comdr. E. Ewing Keith presented "E" pins to the workers on behalf of the Navy. Acceptance of the pins was made by Joseph Osborne.

A third "E" award has been won by the men and women of the Gossett Mills Ladlassie Plant at Anderson, S. C., and a second white star has also been added to the pennant previously awarded to the Blueridge Co. at Glasgow, Va.

Textile industry suppliers have also been honored recently for war production. The Saltville, Va., plant of Mathieson Alkali Works, Inc., received the Army-Navy "E" June 19, and a white star has been added to the flag won last Oct. 28 by the Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., at Passaic, N. J.

"Cotton at War" Film Now Being Shown to Textile Workers

BACKED by the Cotton-Textile Institute, a special motion picture titled "Cotton at War" has been produced by the War Department for distribution in the cotton manufacturing areas of this country. The film is 13 minutes in length, and shows in a dramatic manner what would happen to the Allied war effort if we lacked this vital material. Available in both 16mm and 35mm sizes, the prints of "Cotton at War" can be shown in the plant proper or

in local commercial theaters. Special film depositories throughout the country have been set up for the handling of "Cotton at War," and are concentrated in the states engaged in cotton spinning and weaving.

A national release date of July 1 has been established for the picture, and plans are taking place now to make each showing a real event. Prominent speakers and returned war heroes will tie in frontline combat efforts with the workers on the producing front.

Combat and training scenes vividly show that practically everything that shoots, flies, floats, rolls or walks has cotton as an integral unit, and would be useless without it. The dialogue in the picture is carried on between a green recruit and a seasoned sergeant in the Army. Their conversation brings out that it takes 122 yards of cloth to equip one soldier, and that our annual need for cotton is 12,000,000,000 yards.

In the South, 16mm prints may be obtained from Harfilms, Inc., 600 Baronne Street, New Orleans, La.; National Film Service, 14 Glenwood Avenue, Raleigh, N. C.; Distributors Group, Inc., 756 W. Peachtree Street, Atlanta; Wilfred Naylor, 1907 Fifth Avenue, N., Birmingham, Ala.; Mrs. V. P. Morrill, McCall Bldg., McCall Place, Memphis 3, Tenn.; and National Film Service, 309 East Main Street, Richmond 19, Va. Prints in the 35mm size may be secured from Modern Talking Picture Service, 218 S. Liberty Street, New Orleans; and Jay Schender, 224 W. Second Street, P. O. Box 178, Charlotte.



Soon after taking Rendova, the men of the task force which accomplished the job line up for chow in the deep mud. Theirs has been a trying job. Their combat was not only against Japanese snipers and pillboxes, but also against the changeable elements of nature. "Cotton at War" brings out the fact that this country's fighting men are clothed and equipped with the best there is.

Cut Picker Costs up to 50% with Dayton DeLuxe Pickers



Records of operation on high-speed looms show that these masterpieces of picker design are actually cutting picker costs by as much as half and bringing about notable increases in production.

Dayton DeLuxe Pickers are smoother, tougher and stronger; the flared bottom protects the picker when applied; rounded front corners counteract roughness. Read these 7 DeLuxe advantages:

1. Cut picker costs up to 50%
2. Greatly increase production.
3. Save operating time.
4. When boxed, loom stays in parallel.
5. Throwing a crooked shuttle is eliminated.
6. Jerked-in fillings reduced to minimum.
7. Give month-after-month service on high-speed looms.

Never have there been finer examples of the Technical Excellence for which Dayton Rubber is known. And right now is the time to learn what the Dayton DeLuxe Pickers can do for you. Write for the full facts or get in touch with your nearest Dayton Rubber distributor.

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Maintain Victory Speeds — Conserve Your Tires

Pickers by

Dayton
REG. TRADE MARK
THE DAYTON RUBBER MFG. CO.
Rubber

The Mark of Technical Excellence in Synthetic Rubber

MILL NEWS

HOGANSVILLE, GA.—The plant built last year by United States Rubber Co. is being doubled in size to permit expanded production of lightweight asbestos yarn needed for fire-fighting suits and other vital war items.

Mt. HOLLY, N. C.—*American News and Views* is the title of a new monthly publication now being issued by American Yarn and Processing Co. Published by and for employees, it is complete with stories of plant activities, pictures of personnel and general news. The editorial staff is composed of Miss Mary Juahan, Mrs. Lettie Anderson, Percy Roberts, Melvin Huffstetler and Oscar Lawing. William G. Alligood and Charles Lowe serve as advisors.

MARION, S. C.—The Defense Plant Corp. has executed a contract with Synthetic Fabrics, Inc., to provide equipment for the new textile plant at a cost of approximately \$220,000. Synthetic Fabrics, Inc., will operate these facilities, title remaining with Defense Plant Corp.

GASTONIA, N. C.—A legal attempt by the City of Gastonia to force Gastonia Combed Yarn Corp. and Threads, Inc., to cease placing caustics, dyes or other "injurious substances" in the municipal sewer system will begin in Gaston County Superior Court July 31. The action follows more than a year of discussion on the problem. The city officials maintain that chemical materials from the textile plants destroy the effectiveness of the municipal disposal plant when placed in the sewer system.

GREENVILLE, S. C.—Necessities, Ltd., will begin production of cotton goods about Aug. 1, according to an announcement by company officials. The principal product will be compressed sanitary napkins, with other facilities devoted to the manufacture of baby and surgical items. William D. Young, formerly an officer of Convenience, Inc., has formed, with his family, a limited partnership with working capital of \$100,000. The firm is occupying a two-story building with floor space of 26,000 square feet.

GREENSBORO, N. C.—Burlington Mills Corp. recently completed the production of 100,000,000 yards of material for war products, according to an announcement by J. C. Cowan, Jr., vice-president of the corporation. The country's largest single supplier of parachute cloth, Burlington Mills turns out fabrics for human escape 'chutes of nylon, and heavy equipment, flare, aerial delivery and fragmentation bomb 'chutes, all of rayon. In addition to cloth production Burlington has produced many million pounds of cotton yarns for war purposes. The company's total defense production goes into over 30 other different war products, including insulation for cables and bombers, gun, engine and propeller covers, duffle bags, tents, tarpaulins, webbing, ponchos, WAC raincoats, uniforms, linings and Army and Navy underwear.

Mt. PLEASANT, N. C.—Martin B. Foil of Concord, N. C., has purchased controlling interest in Tuscarora Cotton Mill and has succeeded Otho A. Barringer as directing head of the plant. Mr. Barringer has retired from active duty because of ill health. The new management plans no change in policy or operating program. The mill produces cotton knitting and weaving yarns on some 8,400 spindles.

OPELIKA, ALA.—Officials of Opelika Mills are considering plans for the construction of a large addition that will represent a cost of more than \$900,000, including machinery. The project is said to have a priority rating. Robert & Co. of Atlanta, Ga., is the architect and engineering firm. It is stated that the contract will be awarded soon.

GREENSBORO, N. C.—Two hundred and eighty-four employees of Proximity Mfg. Co. and Revolution Cotton Mills recently completed courses in job instructor training. Training sessions of ten hours each were begun last April, with approximately ten overseers and second hands in each group. They are now using the information gained in training new employees and teaching new operations to old workers.

KANNAPOLIS, N. C.—Starting in the August issues of national magazines, the new Cannon Mills Co. advertising campaign launches a return from war theme copy to product-in-use promotion. Keynote of this new series—the bathroom of tomorrow—is based on an exhaustive study of American post-war housing trends, and on a nationwide public preference poll regarding home remodeling after the war. As the current towel supply is limited, the new Cannon series instead of urging homemakers to buy more towels, endorses the post-war idea of "a towel wardrobe for every bathroom."

NEWTON, N. C.—The old Yount Mill property, including several acres of land, 11 houses and a large warehouse, has been purchased by Old Dominion Box Co. of Lynchburg, Va. The property, which is to be converted into a box factory, was sold through Horace J. Isenhower, administrator of the estate of his father, John A. Isenhower.

Textile Men Received Patents

Two patents have been granted recently which are relative to the textile industry, according to Paul B. Eaton, patent attorney of Charlotte. John C. Crocker of Ware Shoals, S. C., has secured a patent on a check strap for looms comprising a piece of leather folded to have its two ends in side-by-side relation with a bumper block secured between the two ends for engaging the picker stick. Albert L. Butler, vice-president of Chatham Mfg. Co., Elkin, N. C., has received a patent on a blanket and has assigned it to his firm.

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Sell us your surplus yarns. Firsts or mixed. White or colored. Cotton or synthetics.

Wire or write offerings

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Gastonia, N.C.

**78 YEARS OF
SERVICE TO
THE TEXTILE
INDUSTRY**

Since 1866 we have supplied starches, gums and dextrine to the Textile Industry.

Over the war emergency period our Technical Service has solved many wartime sizing, finishing and printing problems.

During this time our Technical Staff has been able to meet critical shortages by finding suitable and satisfactory substitutes.

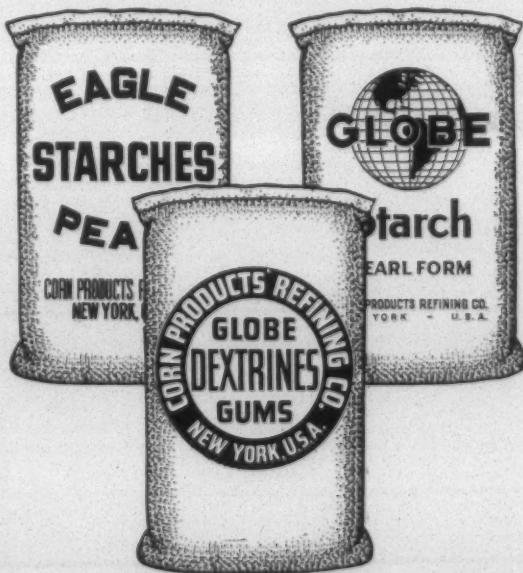
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RECORD!

The winner is backed up by the coach, the trainer, the rest of the team.

Corn Products technical staff teams up with many mills — helping manufacturers solve their textile problems.



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PERSONAL NEWS

Capt. James E. Greer, Chemical Warfare Service, U. S. Army, on leave from the technical department of American Aniline Products, Inc., Charlotte office, visited friends in Charlotte recently prior to embarking for foreign service. For the past few months Captain Greer has been stationed at the Pentagon Building, Washington, on special detached service.

R. W. Jennings, superintendent of the West Point Mfg. Co. plant at Lanett, Ala., was paid tribute recently by friends and associates who honored him with a surprise party on his 70th birthday. He was presented with a bound sheaf of letters and photographs bearing the title, "Love and Friendship," containing much evidence of the many things accomplished by him in industry, civic, social and church life.



Maj. Earl H. Walker, peacetime member of the Solvay Sales Corp. Southern staff, recently received the Purple Heart for his service in World War I. In the picture above the medal is being pinned on him by Brig.-Gen. A. B. Quinton, right, chief of the Army's Detroit, Mich., ordnance district. Major Walker is currently chief of the district's price adjustment branch, and was also under General Quinton's command in the first war. The medal was given in recognition of Major Walker's "meritorious and conspicuous services" in 1918 in connection with the "engineering features, requirement and supply of trench warfare materiel." He received a citation in France in 1919, but in 1932 Congress voted to replace such citations with the Purple Heart, usually given only for wounds received in action. Before re-entering the Army Major Walker covered the state of Virginia and part of Tennessee for Solvay, working out of the company's Charlotte office, of which H. O. Pierce is manager. In recent years he had made his home at Durham, N. C.

DeWitt Thompson, formerly assistant general manager of sales for Mathieson Alkali Works, New York, has been promoted to the rank of lieutenant-commander in the United States Naval Reserve. He entered service in 1942, and is now on duty at the Naval Air Station, Terminal Island, Calif.

D. C. Miner of E. F. Houghton & Co. has been elected president of Eastern Industrial Advertisers, the Philadelphia chapter of the National Industrial Advertisers Association. Roland G. E. Ullman of the advertising organization bearing his name, was named a director.

Ed. C. Langham, executive secretary of the Alabama Cotton Manufacturers Association, has resigned his position effective July 1. He will enter private business.

Dr. Charles S. Venable, director of chemical research for American Viscose Corp. at Marcus Hook, Pa., was elected to the executive committee of the Industrial Research Institute at its sixth annual meeting held recently at Pittsburgh, Pa.

H. L. Childress has been transferred from the position of overseer of weaving at Pacolet Mfg. Co. Plant No. Six, Gainesville, Ga., to a similar position at the company's No. Four Plant, New Holland, Ga. At New Holland he succeeds W. S. Smith, who has resigned because of ill health. C. C. Jordan, formerly of Bibb Mfg. Co. at Columbus, Ga., is now master mechanic at New Holland. He has replaced H. H. Grier, who died recently.

Luther H. Hodges, vice-president of Marshall Field & Co., Inc., and general manager of its manufacturing division, has been elected a director of the Textile Research Institute, Inc., succeeding J. Spencer Love, president of Burlington Mills Corp. and now director of the textile, clothing and leather division of the War Production Board.

T. B. Reynolds, formerly superintendent of Oconee Textile Co. at Whitehall, Ga., has succeeded David S. Ball as superintendent of Eastern Mfg. Co. at Selma, N. C.

J. W. Cox, superintendent of Alabama Mills, Inc., at Aliceville, has been elected president of the Aliceville Rotary Club. He is also a member of the gasoline ration panel for South Pickens County.

K. Williams, manager of the E. I. du Pont de Nemours & Co. plant at Waynesboro, Va., has been elected president of the Washington and Lee University Alumni, Inc.

Theodore B. Luce has assumed new duties as vice-president in charge of finance for Stonecutter Mills Corp. at Spindale, N. C. For the past 25 years he has been associated with Commercial Factors Corp., which will continue to factor the rayon weaving plant.

A. C. Clodfelter, formerly overseer of carding and spinning at Amazon Cotton Mills, Thomasville, N. C., is now night superintendent for Gem Yarn Mills at Cornelius, N. C.

Lieut. William D. Anderson, Jr., son of the president of Gastonia (N. C.) Mill Supply Co., received the commendation of his commanding officer recently on completion of a year's proficient service as a flying schoolmaster of the Army Air Forces at Randolph Field, Tex.



Thomas H. West (left), as noted in a previous issue, has been elected president of the Draper Corp., Hopedale, Mass., succeeding the late B. H. Bristow Draper. Mr. West was born in St. Louis, Mo., in 1900, attended Groton Academy and graduated from Massachusetts Institute of Technology in 1922. He received preliminary textile mill training by working for Quinnebaug and Ponemah Mills prior to becoming associated with Draper in 1923. He became a director in 1931, and vice-president in 1938.

Morris L. Funderburk, son of L. A. Funderburk, superintendent of J. & J. Spinning Mills at Maiden, N. C., has been commissioned a second lieutenant in the Marine Air Corps. He has been serving as a navigator in the South Pacific for the past 20 months.

William L. Meyer, office manager, and C. Frank Balzer of the cashier's department of the New York office of American Viscose Corp., have completed 25 years of service with the company and were honored recently at an informal ceremony. William C. Appleton, president, presented them with their 25-year service emblems and congratulated them on their long and faithful service with the company. Mr. Meyer and Mr. Balzer were among the first to be employed by Samuel A. Salvage, now Sir Samuel Salvage, who established the rayon industry in the United States.

Horace L. Pratt has been appointed laboratory director at the Columbia (S. C.) Mills Division of Mt. Vernon-Woodberry Mills, Inc. Thomas Porter is now overseer of beaming; Lonnie Price is now twisting second hand on the second shift; W. W. Hutchison weaving second hand on the second shift; Otis Wessinger weaving second hand on the third shift; and C. W. Medlen beaming second hand on the third shift.

L. C. Leagan, who has been night overseer of carding at Laurens (S. C.) Cotton Mills, is now assistant overseer of carding for the Kendall Co. at Pelzer, S. C.

A. C. Lineberger, Jr., has been elected treasurer, general manager and a director of Rowan Cotton Mills Co., Salisbury, N. C. He succeeds A. E. Davis, who died recently.

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Published Semi-Monthly

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Offices: 218 W. Morehead St., Charlotte, N. C.
Eastern Address: P. O. Box 133, Providence, R. I.

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Contributions on subjects pertaining to textile manufacturing and distribution are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Must Have Fish and Rice

The Japanese raise very little foodstuffs in their home islands and depend to a very large extent upon rice imported from China and other areas and upon their fishing fleets which range north of Japan.

It is not unusual to hear people say that the Japs require very little food but human beings are very much the same and, while the Japanese can subsist upon rice and fish, they must secure these in large enough quantities to supply 76,000,000 people.

It is also true that no people, not even Japs, can very long stand hunger and even the fanatic, who will charge a machine gun, will surrender when his wife and children are without food.

We have long been expecting that our forces would attack the Japanese fishing fleets and the first of many such attacks came June 26th.

A Navy report says in connection with an assault of the Kurile Islands, which are north of Japan:

A fishing boat fleet, possibly making catches for the Suri-bachi canneries, was virtually run down by the United States task force.

This was a direct blow at the major enemy food supply, as fish and rice form the principal items of the Japanese diet.

The fishing boats were too small to see unless very close, and how many were sunk by instrument-directed gunnery was unknown. But Admiral Smith, in congratulating his men, said there probably would be no fishing off Paramushiro for some time.

While many are writing about the hard fighting which will be required to take Japan, we predict that the day will come when the inhabitants of that island will be unable to obtain either rice or fish and the white flag will be raised as the result of national hunger.

A Reluctant OPA

Many divisions of the cotton textile industry were recently in grave danger as result of the Pace Amendment and other provisions which had been inserted in the Emergency Price Control Extension Bill and they had a narrow escape from disaster.

While the converter and the cutter have persistently operated upon a larger margin of profit than the cotton manufacturer, almost the entire blame for the high prices of clothing and other finished cotton goods has been placed upon the cotton mills.

An investigation will disclose that, as far as profits are concerned, cotton mills are pikers as compared to many other industries but most cotton mills are located in the South, which is subserviently Democratic, and no votes will be lost by making goats out of Southern mill men.

The compromise provisions of the Emergency Price Control Extension Bill have been reluctantly accepted by Price Administrator Chester Bowles and he has stated in effect that cotton mills cannot expect to receive any more than the minimum which was established by the new law.

Upward price adjustments will be authorized, Mr. Bowles has stated, on the following cotton textile items: most combed and carded cotton yarns, major types of sheets and pillowcases, denims, 3.60 yard sanforized chambrays, most combed yarn fabrics and knit cotton heavyweight underwear covered by MPR-221. These items use about one-third of the total cotton consumption of the textile mills.

Effective June 30, 1944, manufacturers of all items of the types named (as well as manufacturers of Class "A" gray print cloth) have been authorized to make open contracts for sale of such items at the new prices which are to be established. The prices themselves will be announced as rapidly as the necessary amendments to the present regulations can be prepared, and will be effective as of June 30, 1944.

The stabilization act requires that each major cotton textile item be separately considered in determining whether OPA ceiling prices reflect parity to the cotton grower. Action had to be immediate, because the amendment provides that it is unlawful after its effective date for OPA to establish or maintain a ceiling price below the prescribed minimum level.

In all cases in which available data permit the making of direct cost determinations, OPA states that it is proceeding as follows in computing the forthcoming adjustments:

First, it is determining the parity equivalent at the mills for the grade and staple of cotton used in the construction. These equivalents are being worked out after full consultation with experts in government and in industry. A table of the actual figures being used will shortly be made available to the public. Secondly, OPA will determine the weighted average of current costs of conversion of the cotton into the particular fabric. Thirdly, it will add a margin above

these two figures, related as closely as possible to the customary dollar-and-cent margin.

This formula, and the various elements in it, says the OPA, will be carefully studied and reconsidered in the light of the amendment and of the much-detailed data which will be available when the forthcoming cost study of all major cotton textile items has been completed. At this time all ceiling prices, including those now being adjusted, will be re-examined.

Mills making osnaburgs and certain coarse fabrics which are not included in the list named by Administrator Bowles claim that recent wage advances almost obliterated any margin of profit and that paying parity for cotton will make the production of such goods unprofitable. Many mills making such goods are not well equipped for their manufacture and have more than normal costs but accepted the orders because the government badly needed the goods.

It is hoped that after more mature consideration, Mr. Bowles will be more inclined to consider ceiling advances for such goods.

The effect upon the cost of living of the price increases announced, Mr. Bowles says, cannot be determined until final decisions have been made as to the extent to which converters, cutters, wholesalers and retailers will be allowed to increase their ceiling prices. Some of the new increases will undoubtedly have to be passed through to the consumer.

To Lift Textile Machinery Control

When called to Washington recently by Donald Nelson of the War Production Board, who was seeking some way through which to check the downward swing in the production of cotton goods, the editor of this publication persistently refused to admit that any material increase in production could be obtained through such schemes as "morale building" or the adoption of "employee-management operations."

He admitted that some slight increase might be obtained through morale building efforts but predicted that it would be such a slight gain as to be almost unnoticeable.

After listening to the editor of another textile journal make a lengthy and enthusiastic statement about the increase of production which could be obtained from placing cotton mills under employee-management operation, which is a very popular theory with New Dealers, this editor stated bluntly that any effort to establish any such system, at this time, would reduce rather than increase the production of cotton goods.

After listening to a discussion which lasted for almost an hour this editor said:

"Your entire discussion seems to be based upon the theory that the cotton mill men of the South do

not know how to efficiently operate their mills. You seem to be trying to decide for them how they can improve their operations and get more production.

"It is my opinion that, with very few exceptions, Southern cotton mills are efficiently operated and every manager and superintendent, I know, is striving to get every possible pound of production."

Asked to explain the drop in the production of cotton goods this editor said:

- (1) Many young men have been taken from the mills into the armed forces.
- (2) In some cases their wives have left the mills to follow them to camps in other sections of the United States. Other wives are receiving a \$50 per month allotment and see no need to work.
- (3) With recent wage advances many employees earn, in four days, all they need and do not work the other two days. It is actually the fact that many object to tax deductions and refuse to earn more than \$12 per week.

Asked for his solution this editor said:

- (1) Use morale building programs to reduce absenteeism but with no expectation of any great increase in production as the result of same.
- (2) Bring more burlap and jute from India for bag purposes and transfer looms from osnaburgs to other goods.
- (3) Release textile machinery builders from war orders and permit them to build machinery, especially cards, for mills which can show that additional machinery will mean additional production. Raise the ceiling on textile machinery to the point that the manufacturers of same can show a reasonable margin of profit.

Our argument may not have affected the situation but we have noted the following:

Washington, July 1.—The War Production Board is studying a proposal to relax part of its controls on the manufacture and delivery of machinery for the textile, clothing and leather industries.

The production of many types of war materials can be slackened because of large stockpiles of same and we believe that additional cards, and in some cases other textile equipment, will aid in increasing the production of cotton goods.

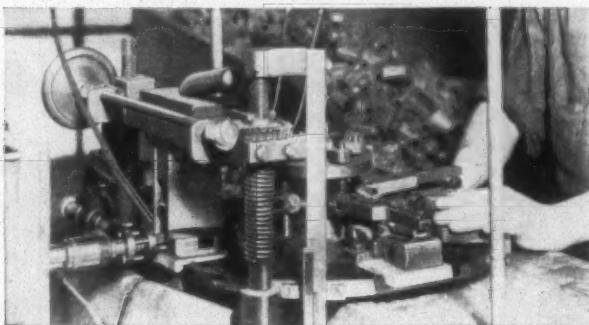
There can be no doubt that the War Production Board has a great need for more cotton goods than are now available and that they are fully justified in exploring all proposed methods of increasing production.

We wished to be helpful and did our best to steer them from impractical to practical approaches to the problem.

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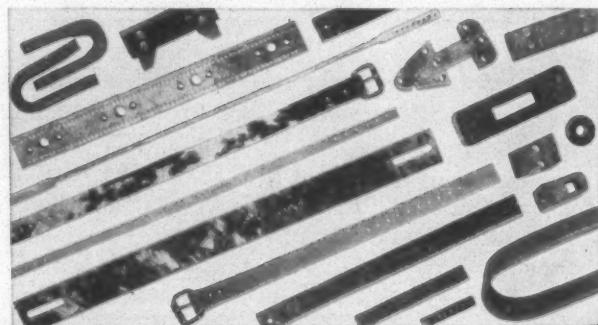


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MASTER MECHANICS' SECTION

A Method of Reclaiming Hook Bolsters

By JAMES T. MEADOR

A METHOD of reclaiming hook bolsters of roving machines that can be applied by the average cotton mill machine shop having the usual equipment, such as a lathe and a drill press, has been developed by Tilden W. Bridges, principal of the North Carolina Vocational Textile School at Belmont. This has been done in connection with the mill mechanics machinist course in the well-equipped shop of the school.

This method provides for mounting the hook bolsters in an upright position on the carriage of the lathe by means of any rigid jig or clamp that might be developed by the mechanic doing the work.

frame or by measuring the centers of the semi-crown gears when in mesh at the proper pitch line.

After this operation has been performed the bolster is drilled for the holding pin in the bottom of the hook, as shown in the illustration. The size of this pin hole is optional and may vary with the discretion of the machinist, which will be satisfactory as long as the pin has a tight fit when in place with the bushing. This completes the preparatory work for mounting the Oilite bushing.

The Oilite bushing is then split into two equal halves and each half drilled also for the holding pin, with the same size drill used on the hook, as explained above. This provides bushings for two bolsters, and is a fact that should be taken into consideration when buying these bushings, that is, order only slightly more than half of the bolsters to be reclaimed.

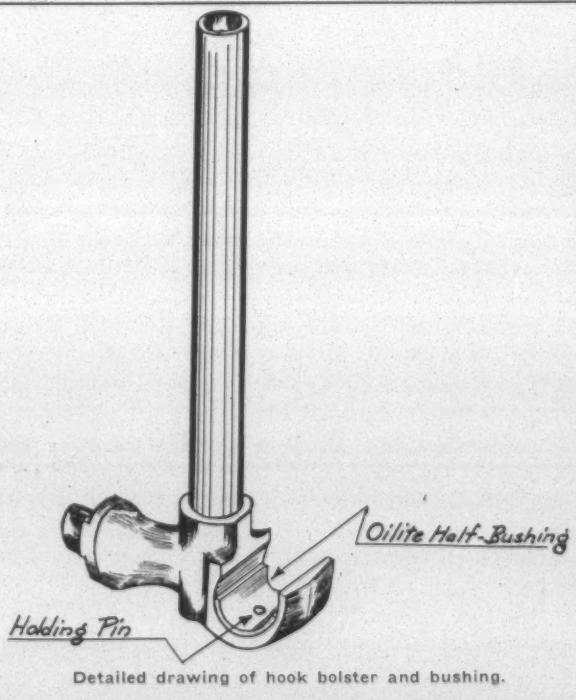
The bushing is now ready to be mounted in the true turned out surface of the hook, and anchored in place by means of a soft steel pin, or brass pin, well riveted on the outside of the hook and carefully peened down flush with the bearing surface of the bushing.

Advantages of the New Method

This application of the Oilite bushings has proved them to be of great value to those mills which have used them, in both the amount of money saved by means of this reclamation in comparison with the cost of new bolsters which cannot at the present time be obtained, and also in the increased life of operation of the bolsters.

The long life of these reclaimed bolsters is due to the remarkable properties of the Oilite bushings in maintaining lubrication on the wearing surface with no other lubrication than that occasioned by the surplus oil that runs down the shaft of the hook bolster and gathers at the bottom in the bushing. This is due to the fact that the Oilite bushings are made of powdered metal pressed into the proper shape and dimensions by extreme pressure, which leaves a bushing that is completely porous throughout all parts of the bushing.

As this is the Master Mechanic's Section of TEXTILE BULLETIN, your comments on this article will be gladly received, and any questions either on this subject or any other will be answered in order of their receipt; address correspondence to P. O. Box 1225, Charlotte 1, N. C., listing writer's name, position, plant affiliation and address.



A boring bar is then mounted in the chuck so that the bit will turn out the hook section to a true surface that will exactly fit the outer surface of the Oilite bearing. The relative location of the center of the turned out true surface with that of the drive shaft which is to be supported can be readily determined by measurement on the roving

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Cotton Goods Market

NEW YORK.—Business in the cotton gray goods market during recent days bogged down completely, as a result of the uncertainty surrounding the course of future prices brought about by revisions in the extended price control act. Selling houses withheld offers of goods, and the only transactions recorded were deals on directives and vital military contracts requiring immediate attention.

Total production of cotton woven goods, over 12 inches in width except tire fabrics, amounted to 2,540,391,000 linear yards in the quarterly period January-March of this year, according to a preliminary report issued last month by the industry division of the Bureau of Census for the textile, clothing and leather bureau of the War Production Board.

These figures show a decline of approximately 300 million yards compared with January-March of last year, when the total was 2,839,302,000. The first quarter of this year, however, shows a slight gain as compared with the preceding quarter, October-December, 1943, when the total was 2,524,610,000 yards.

The figures on narrow sheetings and allied coarse—and medium—yarn fabrics, total 654,534,000 yards for the first quarter of this year and 763,506,000 for the same quarter of 1943. Print cloth yarn fabrics totaled 821,722,000 for this year, first quarter, as compared with 876,535,000 for the same quarter of last year.

An endless stream of priorities continues to pour into the market and sellers state that they are hardly disturbed any more by such demands. Complaints of slipping production are voiced in many quarters, and distributors reveal that with these losses in output civilian allotments decrease correspondingly since government deliveries must be met.

Although the receipts of burlap have been holding up fairly well the yardage is far from enough to fill requirements. Some of the standard constructions in burlap such as the 7½-ounce and ten-ounce have been fairly plentiful and certifications are being taken care of. However, such odd numbers as the 36-inch, 12-ounce are hard to get. These are needed for shipping beans, peas and rice and usually are in stock at this time of the year. That government officials had not foreseen this seasonal demand is the view expressed in some quarters.

Occasionally minor allotments of cotton goods are being made to regular customers, but the amounts involved are so small as to be rather negligible. Selling houses pursue a policy of limiting such offerings only to goods which they are reasonably sure they will not have to cancel later or possibly conflict with future military demands.

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Cotton Yarns Market

PHILADELPHIA.—The supply of sale cotton yarn for military and other high-rated needs still remains below the requirements, despite some improvement. This was brought out, according to trade information, by reports made by manufacturers using sale yarns, whose bids, in the aggregate, have lately failed to cover completely the procurements sought for the armed forces. That is, notwithstanding WPB directives and a price ceiling set-up for some yarn counts that distinctly favors the purchasing of war agencies, manufacturers have given as their excuse for not bidding more liberally, that they cannot get the yarn.

According to early reports of sale cotton yarn spinners' production, billings and sales for June, it is indicated that last month the supply of yarn for over-all purposes decreased again and the outlook is said to be that civilian supply will establish a new low for the war effort during July.

In some market quarters, it is believed the outlook is for a recession of war purchasing of yarns and cotton goods, possibly before Labor Day. Before that, it is expected by a good many observers, cotton quotations may begin to sag, forecasting the ending of hostilities in Europe and labor supply in the yarn and cotton textile mills may be augmented materially by return of workers whose services no longer are wanted in more essential war industries. It is noted that this outcome would have a definite effect (a) on yarn prices and (b) on the volume of yarns available for ordinary commercial uses.

The Bureau of the Census announced in Washington that, according to preliminary figures, 23,312,010 cotton spinning spindles were in place in the United States May 31, of which 22,387,784 were operated at some time during the month, compared with 22,411,922 for April, 22,568,309 for March, 22,513,300 for February, 22,217,994 for January and 22,777,078 for May, 1943. The aggregate number of active spindle hours reported for the month was 10,060,478,468, compared with 9,315,634,608 for the previous month and 10,576,746,785 for May, 1943.

Based on an activity of 80 hours per week, the cotton spindles in the United States were operated during May, 1944, at 119 per cent of capacity. This percentage compares, on the same basis, with 124.9 for April, 122 for March, 123.3 for February, 124 for January and 134.1 for May, 1943. The average number of active spindle hours per spindle in place during May was 432, compared with 400 for the previous month and 451 for May, 1943.

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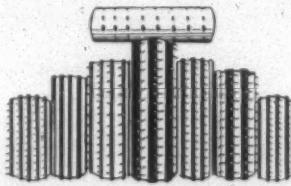
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SUPERINTENDENT wants to change. Have had 20 years' experience on cotton carded yarn. Age 43; married and sober; can give references. Write "W. J.," care Textile Bulletin.

WANTED—Job as Overseer of Spinning or Twisting. Tube twist and short orders a specialty. Age 36½ years. Large family. Capable of assisting superintendent. Address "Box 13," care Textile Bulletin.

WANTED—Job as Assistant Overseer or Second Hand of Weaving. Twenty years' experience on drills, twills, duck and sheetings. Now employed, wish change. Married, age 38. 1-A (H), I. C. S. graduate. Interview desired. Address "20," care Textile Bulletin.

WANTED—Position as Overseer of Weaving. 18 years' weave room experience. Age 39; draft classification 3-AH. I. C. S. graduate on plain weaving and warp preparation. Excellent references from present employers. Would like to arrange interview. Address "93," care Textile Bulletin.

WANTED—Position as Cloth Room Overseer. Experienced on all grades of cloth. Now employed but desire a change. Best of references furnished. Address "H," care Textile Bulletin.

WANTED—Position as superintendent of small yarn mill. Thoroughly experienced and can furnish A-I references. Address "Box 92," care Textile Bulletin.

POSITION WANTED—Overseer Weaving; age 39; 12 years' experience on C. & K. and Draper Looms. Can furnish best of references by well known company and mill men; can handle job large or small; 2 years' experience as superintendent. Address "W. B.," care Textile Bulletin.

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One portable Tieing-In Machine in first-class condition. This machine has been changed over from A. G. G. to A Portable Mote Driven, $\frac{1}{2}$ H. P. motor, 110 V. Can be inspected at our shop.

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Experienced grinders or fixers for roller top cards and tape condensers. New plant, excellent working conditions, at present on a seven-day work week.

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I have secured a 1-lb. waxed pasteboard container for Krome-Weld Cot and Weld Cement, and am glad to announce that shipments can be made in same to my customers hereafter.

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Write "Box C-31,"
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A manufacturer located in the United States who owns manufacturing plants in several countries, desires to employ a loom fixer for their cotton mill and finishing plant which is located in a large industrial South American city. For further particulars, write to address below.

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If you have mop material of any kind to offer, write

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WANTED

General Overseer for Carding and Spinning. Production 150,000 pounds a week, coarse yarns; \$70.00 per week and bonus; yearly pay better than \$4,000.

Write "Production,"
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New Laboratory Scale Is Offered for Mill Use

Toledo Scale Co. has recently marketed the Laboratory Computagram, a scale said to have a rather unusual combination of features designed to solve some of the important weighing problems of the textile industry.

High sensitivity and moderate capacity are combined in the scale. With a sensitivity of one-half gram, or 1/64 of



The Toledo Laboratory Computagram, shown in use above, is described in the accompanying item.

an ounce, and a capacity of five kilograms, this scale is well adapted for general laboratory use. A combination avoirdupois-metric chart has a graduation and figures for every gram. The fully enclosed base of the Computagram is dust-proof and all parts are treated to insure maximum protection against corrosion and rust. Models are available with either black or white lacquer finish and the scale is easily cleaned. Weight indication is rapid, with indicator oscillation controlled by hydraulic dashpot. A hair-line indicator assures correct reading.

Further information may be secured from the manufacturer at Telegraph Road, Toledo 12, Ohio.

Yarn Export Concern Is Chartered

Barnhardt Bros. Export Corp. of Charlotte has been granted a state charter in North Carolina to buy, sell and deal in all types of yarns, with authorized capital stock of \$500,000. The company was incorporated by William H. Barnhardt, Ray Spooner and W. Murray Field, officials of Barnhardt Bros., which serves as sales representative for special types of decorative yarn. The new firm will handle the growing export business of the parent concern. Representation is already set up in Mexico and Cuba, and plans are being made to establish outlets in other South American countries as soon as conditions permit.

A cotton conference sponsored by the North Carolina State Agricultural Adjustment Administration Office took place June 20 at Raleigh. Among speakers were H. Wickliffe Rose of American Viscose Corp., who spoke on "Synthetic Fiber Development," and David Clark, editor of *TEXTILE BULLETIN*, who discussed the cotton outlook from the manufacturer's viewpoint.

Use of Firm's Products Portrayed

As an effective means of reminding former and future customers and prospects of the many and varied products manufactured by the company, Wickwire Spencer Steel Co. has designed and produced an interesting two-color booklet, "Let's Take a Tour With Wick and Spri." Opening with a colorful and cleverly written story of how Wickwire Spencer products are used almost continually throughout the day and night by the average American, an alphabetical listing of the most important of company products follows.

With the exception of a few critical civilian items, the entire production of Wickwire Spencer's five plants continues to be devoted to the manufacture of war products. However, the company looks forward to the future resumption of post-war production and plans extensive cultivation of pre-war plus new fields. Copies of the booklet will be sent to those interested. Write to the advertising department, Wickwire Spencer Steel Co., 500 Fifth Avenue, New York 18.

Moisture-Retaining Ingredient Is Helpful

"Hygroscopic"—a word denoting "readily absorbing and retaining moisture"—is a characteristic of a material which can be introduced into the fibres of leather in order to increase its ability to transmit electricity, according to Kenneth Bell, technical director of A. C. Lawrence Leather Co.

The value of this becomes apparent when it is realized that leather aprons and roll coverings are ideally situated to carry off the static electricity that the yarn develops on roving and spinning frames. The moisture that the leather contains, together with the mineral salts which are used by A. C. Lawrence in the tanning of leather for this purpose, are enough actually to "ground" the yarn, dissipating the static and helping to eliminate many of the troubles which static normally causes. Experience of mills using chrome-tanned leather show that the sliver has much less tendency to separate. The fibers lie flat and do not tend to lick around the top front roll or puff open after leaving the front draft rolls, the company states.

Industry Praised By Allis-Chalmers

Allis-Chalmers Mfg. Co. of Milwaukee, Wis., paid tribute to the textile industry's war record on the company's Boston "Pops" radio program June 24. Allis-Chalmers supplies the textile industry with "Texrope" V-belts and "Magic-Grip" sheaves.

A worthwhile reference volume for the studious dyer or chemist may be found in "Ancient and Medieval Dyes," recently put on sale by Chemical Publishing Co., Inc., of Brooklyn, N. Y. The book, written by William F. Leggett, is a very interesting short text on early dyes of the vegetable, animal and mineral types. The book is based entirely on the historical points of interest, and the reader is given necessary reference and bibliography should he desire data on ancient and medieval technique and application. It explains how primitive people found coloring matter, by accident, in the sap of berries, nuts, roots, plants, shrubs, trees; in insects and fish, etc.

The book may be ordered from the publishers at 26 Court Street, Department G, Brooklyn 2, N. Y. The price is \$2.25.

Directors of Textile Hall Corp. Hold Annual Meeting

Directors of the Textile Hall Corp. held their annual meeting June 28 at Greenville, S. C., electing W. G. Sirrine president and treasurer, R. W. Arrington vice-president and Miss Bertha M. Green secretary. No action was taken as to setting the date for the 15th Southern Textile Exposition which had been previously postponed because of war conditions.

As heretofore announced the next textile show will be scheduled as soon as the national transportation situation permits. All preliminary arrangements have been completed for some time, and the exposition prospectus is ready for printing as soon as a date is set. Many applications for space have already been received.

At the recent meeting the following directors were elected to serve for the ensuing year: R. W. Arrington of Union Bleachery, S. M. Beattie of Woodside Cotton Mills Co., W. W. Carter of Fiske-Carter Construction Co., C. E. Hatch of the Brandon Corp., Edwin Howard of Veeder-Root, Inc., Alan B. Sibley of Judson Mills, J. E. Sirrine of J. E. Sirrine & Co., Earle R. Stall of F. W. Poe Mfg. Co., and W. G. Sirrine, all of Greenville; Herman Cone of Proximity Mfg. Co. and J. Spencer Love of Burlington Mills Corp., Greensboro, N. C.; R. I. Dalton of Whitin Machine Works and B. B. Gossett of Chadwick-Hoskins Co., Charlotte; H. A. Ligon of Mayfair Cotton Mills and W. S. Montgomery of Spartan Mills, Spartanburg, S. C.; Lieut.-Comdr. Thurmond Chatham of Chatham Mfg. Co., Elkin, N. C.; Donald Comer of Avondale Mills, Sylacauga, Ala.; George H. Lanier of West Point (Ga.) Mfg. Co.; F. O. Tyler of Anniston (Ala.) Mfg. Co., and George M. Wright of Republic Cotton Mills, Great Falls, S. C.

Staley's War Contributions Portrayed

Last month's issue of *The Staley Journal*, published for the employees of A. E. Staley Mfg. Co. at Decatur, Ill., called attention to the important roles the company's products are playing on domestic and foreign battlefronts. A feature article described the Staley exhibit in the recent Decatur-at-War Show, which displayed pictures and samples of the starch and its manufacturing processes grouped with pictures of cotton mills, pharmaceutical plants, explosives plants, food factories and dozens of others, together with actual G. I. clothing and towels, medicines, shells and rations. For 30 years the company has been one of the most important supply sources of textile starches.

Life insurance benefits of \$6,477,258 have been paid to employees of E. I. du Pont de Nemours & Co. and their beneficiaries since adoption of a group insurance plan a quarter century ago, the company has disclosed. A total of 4,750 employees or their families have participated in the benefits, according to a company announcement marking the plan's 25th anniversary. The plan was adopted in 1919 as a wholly company-financed program, and has been maintained on that basis. Statistics show the mortality rate among company employees to be well below the average indicated by general actuarial experience. Officials attributed the showing largely to an active safety program, annual medical examinations of employees and careful attention to industrial health measures.

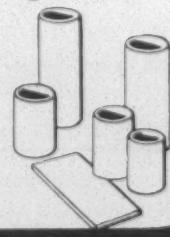


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How your aprons fit and grip and wear, has a large bearing on your spindle production. KENTEX Aprons are designed to do these three things better.

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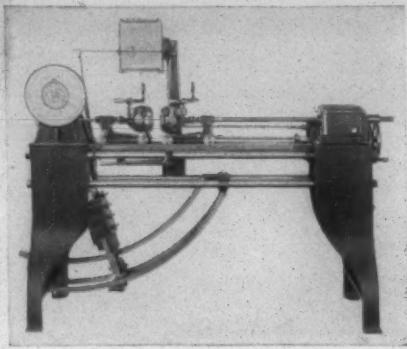
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RAYON: In boiling off, Pine Solvent XX rapidly emulsifies gel-

atinous materials . . . is safe for the most delicate fabrics. Used in dyeing, it makes the fabrics wet out and sink quickly.

DYEING: Pine Solvent XX makes dye liquor penetrate the hardest fibers and heaviest seams. It gives an even, level deposit of dyestuff of uniform depth throughout every fiber. Loose dyestuff and impurities are suspended for washing out completely.

PRINTING: In printing paste, Pine Solvent XX wets pigments thoroughly, disperses them evenly, and holds them in suspension without agglomeration and until the design is on the fabric. Designs are sharp, colors bright and clear, no specks are formed.

**BURKART-SCHIER CHEMICAL CO.
CHATTANOOGA, TENNESSEE**

MANUFACTURING CHEMISTS FOR THE TEXTILE INDUSTRY

Why No Textile Chemistry Research Program?

(Continued from Page 16)—and cotton also blended with synthetics. This includes utilizing the information obtained from the study of yarns and applying this study on cotton fabrics. From this work further studies of practical value can be carried forward on finishing to obtain a desirable feel and drape on the finished goods.

(3) Wool yarns and fabrics be investigated so as to familiarize a research student with a working knowledge of the chief textile yarns and fabrics, natural and synthetic.

(4) Arranging conferences with groups of textile chemical and finishing plant officials and asking them to point out trouble spots in their finishing operations; for example—(a) Tendering of sulfur dyed fabrics when stored. (b) Formation of odor or resin treated fabrics. (c) From dyestuff makers would come complaints of how to prevent various types of dyestuffs from deteriorating on light fastness when the dyed goods are resin treated. (d) Users of cheap direct colors would be interested in methods to prevent crocking at low costs. (e) Users of sulfur colors would want methods to prevent bronzing that would give uniform results.

These ideas might be used as the starting point of a research program which mills using one or more of the different yarns would be interested in and could understand the results in a practical way, yet worked out technically. After such a program is once underway, the chemical and physics departments of these colleges could assist in phases of pure science and research; thereby co-ordinating research so it will pay dividends to the textile mill officials who have so liberally contributed to help keep the industry in step with technical progress.

Piedmont A.A.T.C.C. Meeting Held

The summer meeting of the Piedmont section of the American Association of Textile Chemists and Colorists was held June 17 at Winston-Salem, N. C., with good attendance despite hot weather.

In the afternoon technical session of the meeting members divided into two groups for separate discussions led by A. H. Grimshaw, head of the textile chemistry and dyeing department of the North Carolina State College textile school, and Dr. E. A. Robinson of Harrison, N. J., technical director of National Oil Products Co. Professor Grimshaw conducted an open forum on the solution of problems encountered in warp sizing of cotton, rayon and nylon. Dr. Robinson led a discussion on pre-treatment of rayon hosiery yarns.

"Textile Schools and Textile Research" was the subject of an address made by Dean Malcolm E. Campbell of the North Carolina State College textile school during the evening banquet session. (An abstract of Dean Campbell's remarks will be found in this issue.) R. B. McIntyre, sectional committeemen of Graham, N. C., was in charge of the program. Officers of the Piedmont section are Henry B. Dixon of Burlington, N. C., chairman; Sidney M. Cone of Greensboro, N. C., vice-chairman; Leland G. Atkins of Charlotte, secretary; and Wyss L. Barker of Charlotte, treasurer; Mr. Dixon, who presided over the banquet session, announced that a number of Piedmont section members have indicated their intention of attending the national A.A.T.C.C. convention at Atlantic City, N. J., Oct. 12-14.

Increased Use of Color Is Reflected in Association Report

The widely diversified branches of industry represented by the 120 new members gained by the Textile Color Card Association since the first of this year, says Margaret Hayden Rorke, managing director, give evidence of the increasing use of color and the growing recognition of its importance as a vital merchandising factor now and to an even greater extent in the post-war period.

Over 25 different industries are included in this roster of new members. Among them are dyestuffs and chemicals, woolen, rayon and cotton goods, the cutting-up trades, department stores and specialty shops, cosmetics, hosiery, shoes and leather, shoe fabrics, knitwear, rainwear, millinery, men's hats, neckwear, handkerchiefs, buttons and buckles, blankets, carpets and paint, varnish and lacquer. In view of wartime conditions and world-wide economic restrictions, it is particularly interesting to note, Mrs. Rorke added, that 25 of these new members are from Canada and foreign countries, including England, Scotland, New Zealand, Egypt, South Africa and Brazil.

Because of the many inquiries received from Latin-American and South American firms, the association, Mrs. Rorke said, is expanding its activities in these countries and is issuing literature in Spanish and Portuguese describing its cards and color service. At the present time, the association has members in Mexico, Cuba, Brazil, Chile, Peru, Argentina and Uruguay.

Mrs. Rorke also commented upon the wide use of the association's master color card, the ninth edition standard,

in the many fields of industry, science and art requiring standard color specifications. The Army, Navy and other departments of the U. S. Government, as well as Allied countries, use this card extensively for specification and reference purposes. The electrical and radio industries have adopted the standards for their various color codes from this edition, further indicating its broad application.

Many Persons Inspect Research Set-Up

Nearly 500 members of the textile industries of the United States and foreign countries visited the textile research department of the American Viscose Corp. at Marcus Hook, Pa., in a recent six-month period. They came from 23 states as well as from Australia, Canada, China, Cuba, England, Mexico and several South American countries. The purpose of the textile research department is to provide technical aid for the textile industries in the production and finishing of yarns and fabrics. It is equipped with machines of all types for the spinning of yarns and the weaving, knitting and dyeing of fabrics made of rayon or containing rayon combined with other fibers.

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SODIUM SULPHIDE



The Sodium Sulphide produced by our method is clean, and our Sodium Sulphide STRIPS are of the right thickness to prevent dust losses, yet dissolve easily.

BARIUM REDUCTION CORPORATION **OFFICE AND WORKS: SOUTH CHARLESTON, W. VA.**

Manufacturers of High Quality Sodium Sulphide for Over a Quarter of a Century

Race-Plate Covering On Quality Weaves

(Continued from Page 18)—cut straight at the joining ends, warp yarn creeps into the joining, often resulting in chafed and broken warp yarn.

Occasionally, at warp-outs, some fixers or floor hands remove only half the full length of race-plate covering if one-half shows a fairly good condition. This practice is satisfactory providing temples or other factors have impaired one-half of the covering before the pile or nap has worn down. If the nap is down on both halves and one-half shows breaks into the race-plate, it is better to clean the entire covering off and make a full replacement.

It occasionally happens that glue is spread too near the front edge of race-plate facing breast beam, or through wear, this edge becomes ragged, especially near the shuttle boxes on one or both sides. When pigment rayons or spun yarns of a soft texture are running, considerable ballooning is encountered when the shuttles come out the box. This

ballooning yarn sweeps outward and down along the ragged edges as the shuttle passes. This derangement results in false loom stops and jerked-in filling as the yarn snare onto sharp particles of glue or ragged edges of fabric. To overcome both, a strip of gummed tape is pressed over the edges, presenting a smooth surface for the yarn to pass over.

Several types of gummed paper are available. One of the best comes in rolls and is 1½ inches wide. This tape is composed of very fine cotton mesh imbedded in the paper and given a coating of adhesive on one side. The smooth side presents a highly glossed surface. The cotton yarn reinforces the construction and prevents rapid wear. This paper is also good for worn spots showing in the covering elsewhere and avoids the need of re-covering worn race-plate material between warps. The writer has known of patch-up jobs covered with this paper to wear several months. Other papers are available. One is ordinary brown gummed paper and is often used near the front ends of shuttle boxes. This type of paper needs renewing occasionally.

It also happens that on dull and semi-dull rayon, acetate and fine worsted yarns with low numbers of turns, open filaments snare onto minute edges of gummed paper. This trouble is rarely caught during actual loom running, although the loom stops false and fixers try other places around the box for filling snaring. Once in a great while, the loom may stop with filling yarn adhering to the smooth paper edge, showing the direct seat of trouble. To fix this trouble is then a matter of a few moments, and is quickly accomplished by spreading a thin coating of shellac over the paper edges and fanning it dry. Some plants have a system of dusting sweatless powder into shuttle boxes when filling snares. This is not so satisfactory, as powder cakes up or gums the shuttle or box swells, giving fixers trouble in overcoming rebounding shuttles and bang-offs.

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a Hand"
when you
need it
most—



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With good spinning and twisting hands almost as hard to find as nylon hose, the resourceful "helping hand" of a Victor Service Engineer is more important to you now than ever.

The records show that his willing, experienced cooperation can often compensate, in a considerable measure, for your lack of well-trained personnel.

Your problems are familiar to him because of his own mill-training, and his daily contact with other mills whose "headaches" are much like your own.

He can help you smooth up spinning and twisting to a point where good production is less dependent on the operatives' skill. He can also show you short-cuts in "tooling up" for new fibers, and new mixes and blends.

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Color of Covering

One other factor which is worthy of mentioning in regard to covering is the color. As rayons are often dyed or tinted in the warp, it is advisable to place on contrasting colors. This practice eases the weaver's work when drawing-in warp ends, and also enables cloth inspectors to discern drawing-in defects more readily when passing looms. Likewise, shuttle and box marks show up plainly against the contrasting background. Thus on salmon, green and light warp shades, black race-plate covering is the logical color. On dark colored warps, the use of white and light shades such as light green and tan is to be recommended, and on natural runs or mixed lots, green, gray and other medium colors can be adopted for the covering.

Contrasting colors also show up the abrasive action of warp yarn riding the lay and shuttles striking warp yarn when parallel motions are out, or for other mechanical factors controlling the shuttle's flight.

When warp yarn rides the race-plate, covering along the edge bordering the full width of the reed are often cut into a series of knife-like grooves. Covering wears through and the continued wear eventually cuts grooves into the wood or steel race-plate. Looms for rayon are usually equipped with glass rods behind the reed to hold warp yarn above the race-plate level. This height should be about $\frac{1}{2}$ -inch high above the race-plate, and if pile or felt covering is

used, the ends mesh into the pile and the passing shuttle will ride the pile.

Occasionally, these rods will work loose, riding high at one or both ends, and lift the shed too far off the race. Flying-out shuttles or bruised warp yarn will result. After many years' experience on looms equipped with and without these rods, the writer's opinion is that rayon and fine yarns can be better woven without the use of any rods. Running without rods requires careful adjustment of harness. The bottom shed should merely touch the nap on pile or felt covering. This method will often prolong the life of race-plate covering, in fact, covering should last between three to five months on a 24-hour day production schedule.

When covering is wearing down too fast in front along the race-plate, the breast beam may be a trifle low. The breast beam should be slightly above the race-plate line. If shedding is adjusted right, the shuttle flight paralleled correctly, and the breast beam and lay height properly positioned, a fair grade of race-plate covering will require little attention—and will be the means of weaving a better piece of merchandise.

Textile Schools and Textile Research

(Continued from Page 14)—from its members. In some other instances in which war requirements of the industry necessitate research, the government may request and finance research in the schools. At State College, for example, we are currently conducting some research on cotton carding under the sponsorship and general technical guidance of the Textile Research Institute. In this case the work is being financed by the government because it touches upon a vital production problem.

I hope that I have been able to give you some insight into the relationship of the textile schools to textile research in general, and to the program of research at the State College textile school in particular. If we boil down and concentrate the stream of our discussion, we may say, first, that the schools can, at least in some cases, contribute to research laboratories and to the industry by giving students a background of knowledge of textile research; and second, that with suitable personnel and equipment at hand, the schools can contribute a great deal to the industry by conducting applied research in their own laboratories.

New Tenter Dryer Is Described

Proctor & Schwartz, Inc., has recently made available a folder on the Proctor high speed tenter dryer, which is designed for use in the manufacture of woolen and worsted cloth, pile fabrics, felt, blanket cloth and other fabrics which must be held to width during the drying operation. The folder describing this new machine may be secured by addressing the company's advertising department at Seventh Street and Tabor Road, Philadelphia 20.

The Calco Chemical Division of American Cyanamid Co. has announced the acquisition of the titanium dioxide manufacturing facilities of the Virginia Chemical Corp. at Piney River, Va., from Interchemical Corp. This organization, formerly a part of the United Color and Pigment-Interchemical set-up, now becomes a unit of the pigment department of the Calco Chemical Division with J. Allegra as manager and A. B. Hetrick as resident manager.



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Special Characteristics of Vinyon Finding Widespread Usefulness

Vinyon today is gradually being established in those industrial fields which find need of its unique or special properties, according to a recent statement by Dr. Frederick Bonnet, director of the American Viscose Corp. standards department. Dr. Bonnet points out that prior to the present war vinyon was generally developing its usefulness and finding many applications for which it was particularly qualified.

"As a strait-chain co-polymer of vinyl chloried and vinyl acetate it was readily spun into multifilament yarns with strengths ranging anywhere from one to four grams per denier (i.e., about 20-80,000 pounds per square inch) with corresponding elongations at the break of about 120 to 14 per cent, respectively. But this mere range of strengths and extensibilities was not the outstanding property which made this new resin material such a valuable addition to our textile fibers. It was primarily its unique property of chemical inertness toward ordinary acids and alkalies. For example, mineral acids and alkalies do not attack it at room temperature, even in high concentrations. Seventy per cent nitric, aqua regia, sulfuric, hydrochloric acid and even hydrofluoric acid have no effect on it. Nor do 30 per cent sodium hydroxite, 28 per cent ammonium hydroxide, or even copper ammonia solution. It is also unaffected by alcohols, glycols, aliphatic hydrocarbons (gasoline, mineral oils, etc.) On the other hand, it is dissolved by ketones, softened or partly dissolved by certain halogenated hydrocarbons, esters, certain amines and aromatic hydrocarbons. It is also entirely inert to water, for it does not absorb moisture, swell or lose strength when wet as practically all other textile fibers do, but "vinyon yarns and fibers have the same strength dry or wet."

These properties, says Dr. Bonnet, make vinyon a most valuable filter cloth material, e.g., filtering TiO_2 from concentrated sulfuric acid; iron hydroxide from strong caustic solutions; dross from plating solutions (anode bags); dye-

stuffs and pharmaceuticals from acid solutions. In none of these filter cloth uses is there any chemical deterioration of the vinyon filter cloth. It is mechanical abrasion and other mechanical injuries that wear out the cloth. Very considerable savings are effected by the use of vinyon filter cloth, not only in the savings of filter cloth but in the continuity of operation, ease of cleaning the cloth, which, if necessary, can be done by using acids, alkalies or hydrocarbon solvents, without chemical damage to the cloth.

The limiting factor in its use as the universal filter cloth material is its thermoplastic property. Heated above 65° C. (150° F.) it shrinks. Hence its greatest usefulness is for filtrations below this temperature. However, there is a definite usefulness in such shrinkage or thermal setting. Fabrics can be knit or woven, then thermally shrunk and set as, for example, in making shoe and hat fabrics. Again vinyon makes excellent fish lines and nets because not only does it retain its dry strength in water but resists all bacterial or mildew action as bacteria, molds, fungi and even insects do not attack it. So fish lines or nets do not moulder and rot when left in wet or damp places for long periods of time.

The strength, toughness and certain amount of natural elasticity of high strength fine denier vinyon yarns make them ideal for the production of the fine gauge fabric used for screen printing, particularly since there is no swelling of the yarn when wet, and the screen mesh remains constant in use. Another use for fine high strength vinyon yarns has been for non-absorbing surgical sutures. Such sutures have been in use for a number of years and one physician states he has never had a stitch abscess with a vinyon suture. Sterilization is done in ethyl alcohol.

"Some two years prior to Pearl Harbor," says Dr. Bonnet, "investigation had shown that when certain substances were incorporated into the vinyon it took on elastic properties quite similar to rubber. Although it had possibly a somewhat less snappy elastic come-back than rubber, it was not subject to deterioration like rubber. As a result, both vinyon and vinyon E were restricted to the armed forces for the duration and has found use in elastic cords, various

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types of elastic bandages, etc. Vinyon today is gradually establishing itself in those commercial and industrial fields warranted by its unique or special properties."

Heddles of Stainless Steel Available

Until a few years ago only two types of finishes were available on flat steel heddles—cadmium and nickel plate. Cadmium is rustproof and suitable for cotton mills where relative humidity is very high. Nickel is advisable where the relative humidity is not too high and where white warps, which may be smudged by cadmium streaks, are used. Nickel is used for rayons, silks, woolens and worsteds.

However, more and more mills weaving rayon, nylon and other synthetics are using humidifying systems in their weave sheds. This causes the nickel heddles to rust, and sizing substances thrown off the warp adhere to the rust, causing chafing of the yarn. Also, the heddles are very difficult to clean. To meet this situation Walker Mfg. Co. of Atlantic and Ruth Streets in Philadelphia, began experimenting before the war with stainless steel, and developed a satisfactory heddle of that metal. Stainless steel will not rust under the most adverse humidity conditions. Sizing substances are less likely to stick to the stainless steel heddle. Any substance that may accumulate on this heddle is easily removed in cleaning.

Plans to market this stainless steel heddle extensively were disrupted by wartime restrictions on the use of stainless steel. These restrictions have now been relaxed and Walker Mfg. Co. is again supplying stainless steel heddles for weaving rayons, nylons and other synthetic yarns.

Wickwire Spencer Publishes Collection

For two years, Illustrator Boris Artzybasheff has painted the striking and dramatic series of advertising illustrations used by the Wickwire Spencer Steel Co. In typical Artzybasheff style, each painting has "presented the brutishness of the Axis . . . its craven cowardice . . . its mounting terror as final defeat becomes more imminent. He has illustrated war—this war, every war—in all its vicious, unglorious reality and helped create on every front a better understanding of some of today's bitter truths."

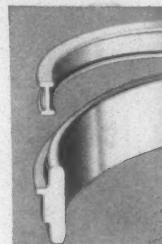
From the publication of the first advertisement featuring Artzybasheff's work, the series has been increasingly popular with the public. The company has received thousands of individual requests for enlarged reproductions of the illustrations and with the publication of each new ad, many hundreds more pour in. Wickwire Spencer, in response to an insistent demand, collected the outstanding illustrations published so far, and incorporated them in the booklet "Axis in Agony." Although just published, the demand for the booklet has already exceeded initial expectations, and has been praised as another definite contribution to printed promotion which helps the war effort.

A verdict of guilty on three charges of perjury has been returned in the U. S. District Court at Mobile, Ala., against J. C. Sanders, cotton mill owner. He was sentenced to five years' imprisonment by Judge John McDuffie. Sanders immediately filed notice of appeal and was released under \$5,000 bond. Sanders faced charges arising out of insurance claims filed by him after one of his plants was destroyed by fire.



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OBITUARY

Junius Hill Harden, 84, who more than 50 years ago was instrumental in establishing Burlington, N. C., as a textile manufacturing center, died last month. In 1917 he reorganized the Holt-Granite Mills at Haw River, N. C.

Peter Ihrie, Jr., 27, Army Air Corps first lieutenant, died in action in Italy Jan. 30. Before entering the service in 1942 Lieutenant Ihrie was connected with Burlington Mills Corp., holding positions in the company's Greensboro, N. C., and New York offices.

George Russell Stearns, 84, retired president of Riverside Mills, Inc., died recently at Augusta, Ga. He established the bagging concern in 1888 and operated it until 1930.

John C. Jones, Jr., 35, treasurer of Thomaston Cotton Mills, died recently after a brief illness. His widow and a daughter survive.

Arthur Stringer, 61, personnel director of Chicopee Mfg. Corp., died recently at Gainesville, Ga. His widow, four sons and a daughter survive.

T. V. Ellis, 50, secretary and assistant treasurer of Clinchfield Mfg. Co., died recently at Marion, N. C. He had been with the company some 25 years.

Harold N. Goodspeed, Jr., son of the president of A. C. Lawrence Leather Co., Peabody, Mass., died May 24 on the Anzio front in Italy. Lieutenant Goodspeed served with the infantry and had received the Purple Heart for wounds received while serving in the Mediterranean area. He worked for his father's concern after leaving college in 1940 and prior to entering the Army. He is survived by his wife, parents and a brother.

Mrs. E. M. Cooke, 75, widow of one of the pioneer textile manufacturers of Swepsonville, N. C., died June 15 at the home of her son, R. B. Cooke, superintendent of Plant No. Six, Erwin Cotton Mills Co., Durham, N. C.

Mrs. Albert Lehmann, 77, mother of E. R. Lehmann, superintendent of the West Point Mfg. Co. plant at Langdale, Ala., died recently at her home in LaGrange, Ga.

How two German-discovered war materials were made available for Allied military use through efforts of research workers for General Aniline & Film Corp. was related in a report by company directors June 29. Production of the two products, polectron resins and carbonyl iron powder, has been but one of the war accomplishments of the former Nazi-dominated concern, according to George W. Burpee, president. Stock in the company, a three-time Army-Navy "E" award winner, is to be made available to private investors when put up for public sale upon release by the alien property custodian.

Enamel, Rust Removed From Reeds By Power Brushing

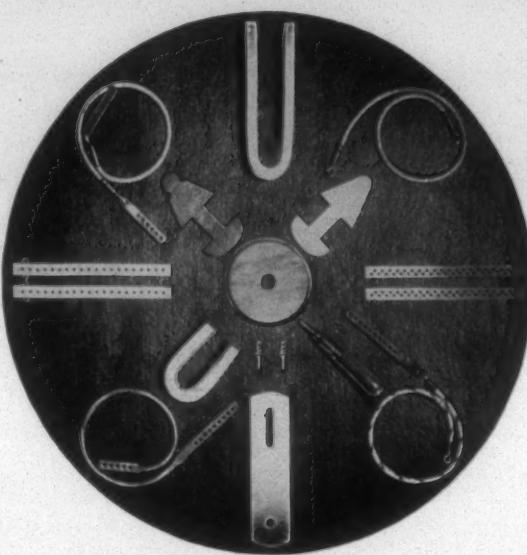
Removal of old enamel or rust from reeds of cotton mills preparatory to refinishing, a job of equipment maintenance which is vital to production and which must be done regularly, has been greatly simplified and, at the same time, productive of greatly improved results, by application of power brushing, according to experiences of one of the country's leading mills.

Removal of old enamel or rust consists simply of bringing the surfaces of the reed into contact with spinning wire brushes. The brushes are mounted together on a special power-driven arm and spin at 1,800 revolutions per minute. The reed, which is four feet by three inches and made of wire, is pushed back and forth under the brushes until clean.

Many times faster than hand methods, power brushing, by virtue of its positive and readily controlled action, is said to do a much more thorough job. An important advantage reported by users is the fact that this method leaves smooth, even surfaces by removing old enamel, rust, burrs, hicks, dents and other surface irregularities, either left on the parts during original manufacture or assembly, or during operation or dismantling of the equipment.

A brush widely used is manufactured by Osborn Mfg. Co., world's largest producers of power brushes at Cleveland, Ohio. Known as the "master wheel," it is an assembly of steel wire sections locked into the hub under tremen-

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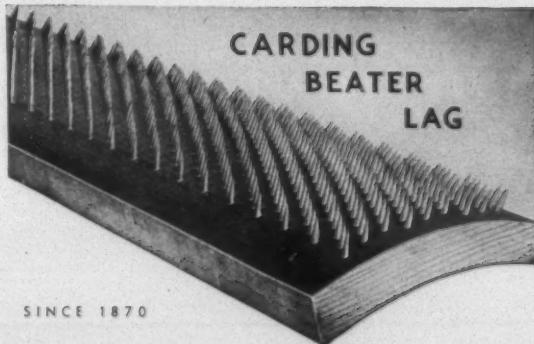
dous pressure. It is of four-inch diameter and the wire is No. 33. Special crimping of the wire and proper density of the brush face, are reported responsible for the brush's long effective service in this essential cotton mill maintenance operation. This "master wheel" is shown at center of the accompanying illustration.

After the surfaces of the reed are thoroughly cleaned of old enamel, rust and other irregularities, they are then polished in another operation with fine wire brushes, also power driven. These two power brushing operations, that of surface cleaning and polishing, make the surfaces of the reed smooth and uniform for refinishing. This leaves the reeds free of jagged surfaces which cut threads.

A Soldier's Yearly Textile Supply

It requires 136.06 square yards of cotton material and 45.23 square yards of woolen material to equip initially and maintain a soldier in the United States for one year, according to a tabulation made in the Office of the Quartermaster General, the War Department reports. Besides clothing, the cotton and wool items include articles of personal equipment such as barracks bags, canteen covers, towels and blankets, and barracks equipment such as sheets, pillow cases, mattresses and cotton comforters.

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Development of New Plastic Announced

Plas-Tex, a new plastic, using cotton duck as a basis, has been perfected by the research and development department of E. H. Jacobs Mfg. Co. of Charlotte and Danielson, Conn., W. Irving Bullard, president, announced recently.

Plas-Tex will replace rawhide, leather, fibre and hard rubber as reinforcing materials for weaving loom replacement parts, such as binders, sweepsticks and other attachments for the picking motions of looms.

Actual work on Plas-Tex has been under way for more than 18 months at the Danielson, Conn., rubber and plastics plant. After experimental loom parts were processed with the new material, they were distributed over 100 woolen, worsted and cotton mills, so that Plas-Tex could be studied under actual working conditions. To date there has been no failure of these Plas-Tex parts, and the life of these items appear to be many times that of the material it substitutes, Mr. Bullard said.

Before Pearl Harbor, rawhide of the best Oriental and Indian grades was used, and the best quality of hard rubber and fibre. Since the war began, limited amounts of American tanned substitutes for rawhide have been used rather generally with fair results. The slaughtering of young steers with their light hides has created a shortage of heavy oak leather and rubber is "out" for the duration.

The Jacobs company began experiments by fabricating numerous laminations of finely woven Army duck, impregnated with a specially compounded synthetic resin and cured under pressure in a heated press. Plas-Tex, unlike most plastics, fuses into a practically indestructible material under relatively low heat and pressure without the danger of ply separation. The process produces an exceedingly tough, yet resilient material with a high degree of resistance to impact and abrasion.

All-American Linen Deemed Possible

The prospects of a domestic linen industry are discussed in a recent issue of *Pathfinder*. According to the news weekly, 18 years ago, a scientist, R. E. Montonna, gazed blankly toward the wall of his study, but his thoughts went far beyond to Minnesota's fields of flax. The seed was widely used, a small fraction of the straw was used in making cigarette paper, a little went into furniture packing. Thousands of tons of straw were discarded. Mr. Montonna thought it could be used to create an American linen industry.

He is now ready to report on the possibility of creating such an industry; one with a total potential of 400,000 tons of linen thread annually. Two years ago the Minnesota State Legislature appropriated \$20,000 for a two-year study under his direction. Researchers built spinning machines. Flax straw was turned into linen thread, woven into towels, handkerchiefs and sheets. The linens were used, washed, used again. Ninety times they were put through the wash and they're still in use. The flax of Ireland and the low countries grows twice as high as that in Minnesota, Montana and North and South Dakota, and it is finer in texture. But Dr. Montonna's thread is of extremely high quality. He has devised the process, made the thread, woven it into linen, and it has survived all tests. Now he believes the time has come for a small commercial plant to develop a thriving business.

Murchison Cites Industry's Record and Says Demands To Be Met

While the cotton industry at present is employing 40-odd thousand less workers than in the spring of 1943 and production is down about 13 per cent, the full demand of military requirements of every type will be met and the civilian population will suffer no undue hardships, Dr. C. T. Murchison, president of the Cotton-Textile Institute, declared June 17 at ceremonies marking the 169th anniversary of the founding of the Philadelphia Quartermaster Depot of the United States Army.

Briefly citing the achievements of the industry from 1941 through most of 1943, Dr. Murchison pointed out that mills in that period reached a crest of performance thought to be unattainable without building new plants, acquiring new machinery and with no reliance on government funds. Mills, he said, have repeatedly done the impossible with machinery that was unsuitable for the particular job and in many cases regarded as too obsolete for any purpose. He explained that mills have gone to considerable expense in training workers to replace those drafted into the services or lost to war plants and managed to maintain operations long after the production line should have declined.

Speaking directly to officials of the Quartermaster Corps, he declared, "You have brought to bear on your new problem the most careful research work and the technique of continual testing. You have, with us, developed new constructions and new materials. You have taken familiar fabrics and given to them new finishes designed for special purposes. Your laboratories and scientific personnel have given cotton a new competence. It has been able to do things which it never before could do. Wherever necessary, various finishes have been combined to make a given fabric waterproof, fireproof, mildewproof and more resistant to the wear and tear of combat service.

"What has been accomplished in all these respects by the Quartermaster under the stress of war will continue a fine heritage for the industry with the coming of peace. You have led us to new fabrics, new finishes, new uses and have given us new conceptions of the great possibilities which lie in the commercial development of cotton goods."

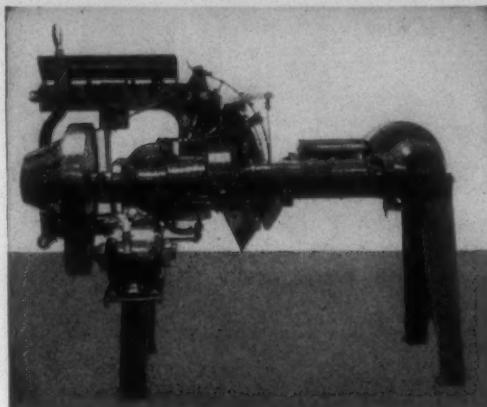
Research Congress Meets July 13-14

National authorities on cotton and agriculture will discuss wartime and post-war problems of the Nation's No. one war crop at the Fifth Annual Cotton Research Congress to be held in Dallas, Tex., July 13-14, under the sponsorship of the State-Wide Cotton Committee of Texas. Maj. Burris C. Jackson of Hillsboro is general chairman of the event.

The National Cotton Council, Cotton-Textile Institute, National Cottonseed Products Association and other groups have joined with Texas industry organizations and educational institutions each year in making the congress one of the most important meetings held by any agricultural group, Major Jackson said. All groups are co-operating in the forthcoming meeting. Comprehensive exhibits covering all phases of the use of cotton and cottonseed in the war effort have been planned by a committee headed by D. T. Killough, Texas Agricultural Experiment Station.

time has come for a small commercial plant to develop a

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Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

ABINGTON TEXTILE MACHINERY WORKS, Abington, Mass. Of-
fices at Boston, Mass., and Charlotte, N. C.

ACME STEEL CO., 2838 Archer Ave., Chicago, Ill. Sou. Office and
Warehouse, 608 Stewart Ave., S.W., Atlanta, Ga., F. H. Webb, Dist.
Mgr. Sou. Sales Reps.: C. A. Carrell, 523 Clairmont Ave., Decatur, Ga.,
Phone Dearborn 6267; Marcus M. Brown, 1231 Lexington Ave. (Phone
8583), Charlotte, N. C.; William G. Polley, 927 Cherokee Lane, Signal
Mountain, Tenn., Phone Chattanooga 8-2635; John C. Brill, 309 Maga-
zine St., New Orleans, La., Phone Magnolia 5859. Warehouses at At-
lanta, Ga., Greenville, S. C., New Orleans, La.

AKRON BELTING CO., THE, Akron, O. Sou. Reps.: Ralph Gossett
and Wm. J. Moore, 15 Augusta St., Greenville, S. C.; The Akron Belt-
ing Co., 406 S. 2nd St., Memphis, Tenn.

ALLEN CO., 440 River Road, New Bedford, Mass. Sou. Repr.: L. E.
Wootton, Fort Mill, S. C.

AMERICAN BLOWER CORP., P. O. Box 38, Roosevelt Park Annex,
Detroit, Mich.; 7 N. 6th St., Richmond, Va.; 1211 Commercial Bank
Bldg., Charlotte, N. C.; Room 714, 101 Marietta St. Bldg., Atlanta, Ga.;
Room 309, Jahncke Bldg., 816 Howard Ave., New Orleans, La.; 619
Texas Bank Bldg., Dallas, Tex.; 812 Keller Bldg., Houston, Tex.

AMERICAN CYANAMID & CHEMICAL CORP., 30 Rockefeller Plaza,
New York City. Sou. Office and Warehouse, Wilkinson Blvd., Charlotte,
N. C., Hugh Puckett, Sou. Sales Mgr. Reps.: John D. Hunter, E. H.
Driver, Paul F. Haddock, Charlotte Office; E. J. Adams, 1404 S. 22nd
St., Birmingham, Ala.; Jack B. Button, 610 N. Mendenhall St., Greens-
boro, N. C.; C. B. Suttle, Jr., 423 Clairmont Ave., Decatur, Ga.; K. E.
Youngchild, 10 South St., Mobile, Ala.

AMERICAN MOISTENING CO., Providence, R. I. Sou. Plants, Char-
lotte, N. C., and Atlanta, Ga.

AMERICAN VISCOSA CO., 350 Fifth Ave., New York City. Sou.
Office, Johnston Bldg., Charlotte, N. C., Harry L. Dalton, Mgr.

ARKANSAS CO., Inc., P. O. Box 210, Newark, N. J. Sou. Repr.:
Jasper M. Brown, 1204 Greenwood Cliff, Charlotte, N. C.

ARMSTRONG CORK CO., Industrial Div., Textile Products Section,
Lancaster, Pa. Sou. Office, 88 Norwood Place, Greenville, S. C. J. V.
Ashley, Sou. Dist. Mgr.

ARNOLD, HOFFMAN & CO., INC., Providence, R. I. Sou. Head-
quarters, 2130 N. Tryon St., Charlotte, N. C., Mgr., Walter T. Bunce,
Phone 2-4078; Technical Service Men: Reid Tull, 116 W. Thomas St.,
Salisbury, N. C., Phone 1497-1; Philip L. Lavoie, 2130 N. Tryon St.,
Charlotte, N. C.; John H. Graham, P. O. Box 904, Greenville, S. C.,
Phone 2922; John R. Brown, P. O. Box 740, Trussville, Ala., Phone
127; Warehouse, 2130 N. Tryon St., Charlotte, N. C.

ASHWORTHII BROS., Inc., Charlotte, N. C. Sou. Offices, 44-A Nor-
wood Place, Greenville, S. C.; 215 Central Ave., S.W., Atlanta, Ga.;
Texas Rep.: Textile Supply Co., Dallas, Tex.

ATWOOD MACHINE CO., Stonington, Conn. Sou. Rep.: Fred Sails,
Johnston Bldg., Charlotte, N. C.

AUFFMORDT & CO., C. A., 468 Fourth Ave., New York City.

BAHNSON CO., THE, 1001 S. Marshall St., Winston-Salem, N. C.;
886 Drewery St., Atlanta, Ga.

BANCROFT BELTING CO., Boston, Mass. Warehouse and Sou. Dis-
tributor, Carolina Supply Co., Greenville, S. C.

BARBER-COLMAN CO., Rockford, Ill. Sou. Office, 81 W. McBee
Ave., Greenville, S. C., J. H. Spencer, Mgr.

BARIUM REDUCTION CORP., S. Charleston, W. Va. Sou. Distrib-
utors: American Cyanamid & Chemical Corp.; F. H. Ross & Co., Char-
lotte, N. C.

BARKLEY MACHINE WORKS, Gastonia, N. C.

BARNES TEXTILE ASSOCIATES, Inc., 10 High St., Boston, Mass.
Sou. Office, 818 Montgomery Bldg., Spartanburg, S. C.

BECCO SALES CORP., Buffalo, N. Y. Sou. Reps.: J. D. Quern and
D. S. Quern, 1930 Harris Road, Charlotte, N. C.

BEST & CO., Inc., EDWARD H., Boston, Mass. Sou. Rep.: W. C.
Hames, 185 Pinecrest Ave., Decatur, Ga., Phone Dearborn 5974; Ralph
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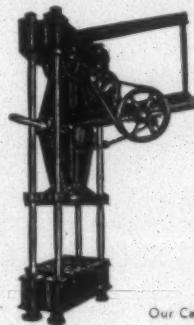
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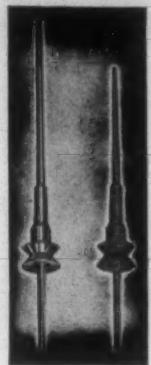
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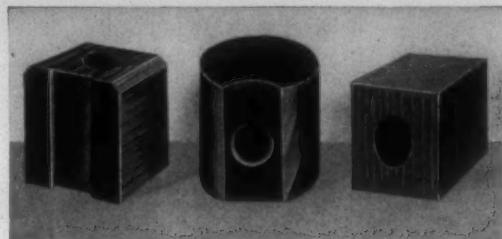
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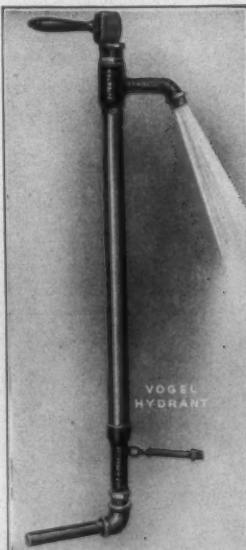
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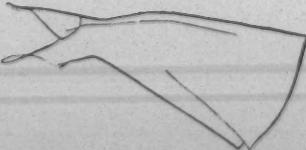
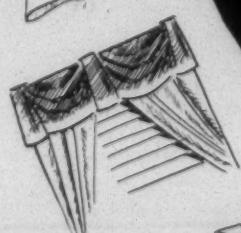
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